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An Address.[1]

MEDICINE, THE STATE AND THE PUBLIC.

By A. J. COLLINS, D.S.O., M.C., M.B., Ch.M. (Sydney),
President of the New South Wales Branch of the British Medical Association.

My pride on being chosen President of the New South Wales Branch of the British Medical Association was great, for I recognized that the Branch had conferred upon me the highest honour which a member can receive at its hands.

I desire that my first official utterance shall be a tribute to the meritorious performances of my immediate predecessor, Dr. Holmes à Court, who has occupied the presidential chair with dignity and grace. During his most arduous and anxious year of office he has not hesitated to make great sacrifices on behalf of the Association. He has, moreover, set a cogent example—that of a leader in his profession devoting his energies and abilities to the interests of his colleagues.

Whilst the contemplation of the illustrious line of former presidents fills me with humility, it likewise urges me to use my best endeavours to profit by their wise precepts, to follow their carefully chosen steps along the path of professional progress and, finally, to cherish those high ideals of professional conduct which they have so zealously and effectually propagated.

The dawn of 1934 revealed a stricken and changing world. Social distinctions, economic conditions, forms of government, as well as principles of nationalism, which had been regarded by a pre-war generation as desirable and permanent institutions, now appear to give such scant satisfaction that important alterations are foreshadowed in many directions. It is impossible, however, for the man in the street to predict even the near future.

[1] Read at the annual meeting of the New South Wales Branch of the British Medical Association on March 22, 1934.

There was never an era of greater importance to the medical profession. There is more than a probability that the relationships which have existed between the profession, the State and the public will either gradually or more rapidly undergo serious modification. As a profession we are not interested in political dogma or forms of government. We serve the public, and, in partial reward for such service, we find our means of livelihood. Yet we feel genuine alarm because of an increasing tendency upon the part of the State to provide medical and social services in a haphazard manner without regard for the real interests of the public or those of the medical profession.

At this stage, therefore, it seems necessary to study our present position in relationship with the State and the public, to take cognizance of the ancient ideals of service which have been handed down to us from generation upon generation of practitioners, as well as to define our future medical policy. This will assist us in determining how the public may be fairly served under any form of government which the future may provide, whilst at the same time adequate safeguards may be insured for our own interests as a profession.

Let it be declared at the very outset of these discussions that there is in our minds no conflict between our interests and those of the general public. In any policy for the care of the sick and the prevention of disease the profession must be so employed as to produce the best possible result for the people as a whole. The State is naturally interested in the health of its people. Of the provisions for the medical care of a community there are some which might appropriately be made by the State. But there are many with which the State would do best by refraining from interference. Let us examine the former and endeavour to ascertain whether they might have general application or merely possess local importance.

1. The State should provide medical care where none is available by appointing a subsidized or whole-time officer, who should have proper qualifications. Especially should the medical treatment of the sick poor be paid for by the State.

2. The State should supervise the class of medical service available by keeping a register of practitioners and prescribing the qualifications therefor. It should maintain a high professional standard.

3. As a logical corollary, the State should prevent exploitation of the public by the increasing army of unqualified practitioners.

4. It is the duty of the State to see that sufficient hospital accommodation is found for those who cannot, on various grounds, be treated in their homes.

5. All measures for the prevention of disease and the promotion of maternal and infant welfare should be controlled by the State.

6. The State should be interested in medical education, post-graduate study, and research into the causes and prevention of disease.

In most countries governments are endeavouring more and more to conform with these requirements; so much so, indeed, that nationalization of the profession is a question of practical politics. Nationalization has many advocates within our ranks; but as a whole we consider it unnecessary and undesirable, inefficient and wasteful.

Taking the above-mentioned requirements in order, the first requires serious discussion, both in general and as regards New South Wales in particular. Domiciliary medical care is available from private practitioners for those able to pay for it. Private practitioners similarly provide treatment for that intermediate class who can pay in part, by contributing to friendly societies and various existing types of contribution funds and insurance schemes. In addition, most countries insist that workmen shall be insured against accidents and illness met with in the course of their employment. There remain the destitute sick, whose domiciliary treatment is not provided for at all. They should and must be the responsibility of the State, which, by subsidizing private practitioners or by appointing a State medical officer, should in one way or another pay for their treatment. With this exception, the conditions of private practice, as above outlined, have been carried out in New South Wales in a way satisfactory to the public, and on the whole satisfactory to our profession. Our relations with the friendly societies have been excellent for many years. Our only differences with them have been of minor importance, and have chief reference to rates of remuneration.

The friendly societies are of opinion that our present rates are too high, an opinion with which we cannot agree. Still, the question is undergoing friendly negotiation between our representatives and theirs. My main contention is that contract practice as carried out between private practitioners and friendly societies in this State serves one particular section of the public exceedingly well and is satisfactory to our profession.

The passage of the *Workers' Compensation Act* definitely established the injured worker's claim to medical treatment rather than medical charity. As such we welcome it, for while our profession has never been loath to dispense charity, it has been equally reluctant to suffer exploitation from the State or from wealthy insurance companies. Certain of these companies have recently brought strong pressure to bear upon our Association, to reduce our already low rates for this form of practice. Your Council has had no hesitation in resisting these demands, on account of the absurdly inadequate fees offered. We are hopeful of proving before long that our attitude is justifiable, and thereby ending the dispute in our favour. A disagreement about rates of payment, however, does not affect the principle that workers' compensation is a progressive step for the good of the public and the profession alike.

Before returning to consider the destitute sick, there is a middle class to which reference should

be made. It comprises people above the income limit prescribed for friendly society contract practice, but of circumstances ill suited to bear heavy costs for medical or surgical treatment. One feels that this large class, in some countries the bulk of the population, receives the poorest type of medical care. In order to study the means of these patients, practitioners tend to reduce their visits to the bare minimum required by the exigencies of a particular illness, to dispense with the aid of consultants, and to refrain from the full pathological and X ray investigations which, under more favourable circumstances, would have been ordered.

The peculiar wants of this unfortunate class have been rendered prominent by the increasing scope of medical investigation and treatment. They are engaging the attention of most communities. The future must specially provide for them by means of contract practice at a higher level than that obtainable through the friendly society, or by some form of voluntary insurance scheme. Their hospital treatment has already been catered for in community hospitals, where these institutions exist.

Let us now return to the destitute sick. We have just passed through a long period of financial depression. The number of unemployed has grown to unprecedented figures and with it that of the destitute sick. Many who formerly contributed to friendly societies have been obliged to forgo their membership. It is a sad commentary upon our governmental policies that these people have been literally abandoned by the State in so far as domiciliary treatment is concerned, and only in cases requiring hospital treatment does their State recognize their existence. One cannot, however, pay too high a tribute to those general practitioners who have, throughout this period of depression, devotedly cared for their destitute patients, without thought of reward, and very often at considerable expense. Unavailing representations to the Government have been made on their behalf by your Council. It is only recently that the Government has arranged to provide dressings and drugs for these destitute patients upon their doctor's prescriptions. Prior to this arrangement, the practitioner provided the drugs and dressings at his own expense. While this unfortunate failure on the part of the State has exercised our minds, we have been dismayed to witness the manner in which the State has established in Sydney a clinic for the treatment of venereal disease. At this clinic any person may receive treatment without payment of medical or other fees, notwithstanding his ability to pay. We consider it desirable that this clinic should be established, but we are strongly of opinion, as taxpayers and as a profession, that it should treat only those who cannot afford to pay for treatment. The money thereby saved could be more appropriately applied to treatment of the destitute sick in other directions. It is a striking anomaly that while the State is willing to provide free treatment at the taxpayers' expense for a millionaire suffering from venereal disease in Sydney, it has made no provision for the domiciliary treatment of an unemployed worker suffering from influenza.

The hospital question is one which has been actively discussed by our members during the last two years. These discussions have culminated in the formal adoption by our Branch of a hospital policy.

This course of action was rendered necessary by our recognition of two important facts: (i) Hospital abuse has of recent years increased to an alarming extent. (ii) There appears to be an increasing tendency for hospitals to encroach upon private medical practice.

Our Branch was faced with two expedients for dealing with hospital abuse: (*a*) the payment of visiting medical officers, (*b*) the conversion of the voluntary hospitals into community hospitals.

There seems to be a growing desire in many countries to recognize the claim of the visiting medical staff to some degree of remuneration. Sir Arthur Newsholme states in "Medicine and the State": "There should be a frank acceptance of the principle of payment to the honorary members of hospital staffs."

I think we are in cordial agreement with him; but we recognize that to insist upon our full rights in this respect might lead to the appointment of full-time medical officers to voluntary hospitals. In Denmark, Sweden and Germany most hospital doctors are whole-time officers. For various reasons the visiting system is considered preferable in this country to the staffing of hospitals by whole-time officers, and for the present we are prepared to waive the right of our honorary staffs to be paid for treating the necessitous sick. In fact, we are proud of our professional tradition to care for those who are genuinely in need. We have therefore adopted the community hospital scheme as the basis of our hospital policy, in the hope that the administrative authorities of these institutions will use every endeavour to protect us against abuse. If the future proves that this hope cannot be realized, it will be necessary for us to recast our policy.

Let us turn now to the encroachments of voluntary hospitals upon private practice. This is no new development. For many years the treatment of the insane has been almost entirely carried out in public asylums. The same applies to infectious diseases and tuberculosis. Many countries have established free clinics for the treatment of venereal diseases, either in cooperation with public hospitals or under separate administrations. The obvious reason for all this is that hospitals and clinics, staffed by specialists and equipped with diagnostic units, provide superior treatment to that which a single practitioner can offer. Indeed, the advances in medical knowledge are occurring so rapidly and widely that it is impossible for general practitioners to keep abreast of them. In recognition of this truth, practitioners are willingly sending their more difficult cases for treatment at hospitals. An

obvious way in which these encroachments can be minimized is by a conscious effort upon the part of the profession to raise its own standard of efficiency, by fostering the increase of post-graduate teachings, and by encouraging the closest cooperation between private practitioners and hospital staffs. Our hospital policy, moreover, is designed to assist private practitioners in two directions: (i) In community hospitals they will have added facilities for giving personal supervision to their patients who require hospital treatment. (ii) Outside the teaching hospitals we consider it desirable that, where no objection is expressed by hospital boards, all men practising in a district should be enabled to attend their own patients in public beds. In the short time at my disposal I can make no more than brief reference to the other headings under which I have classified legitimate or justifiable activities in the medical field on the part of the State.

It is universally held that preventive medicine should be primarily a State responsibility. Important branches of preventive medicine are the measures for (*a*) isolating and treating infectious diseases, (*b*) the safeguarding of infant life. The segregation of patients with infectious diseases should be in special hospitals administered along community hospital lines. It is worthy of note that the Coast Hospital in this State is not conducted in accordance with our hospital policy, in as much as patients of all financial classes are admitted without the payment of medical fees. The Minister for Health has been approached on this subject, but is at present unwilling to make any change in the direction we desire.

Our Branch whole-heartedly approves of the establishment of baby clinics for the instruction of parents in infant feeding. We consider, however, that these clinics should cooperate with medical practitioners and should in no way encroach upon private medical practice.

It is probable that the principle of grouping diseases in special clinics for purposes of treatment will be greatly extended in future. Naturally, the financing of such clinics will be largely undertaken by the State. Unless we agree that private practice shall be completely abolished, these clinics should be staffed by part-time officers and patients should be compelled to pay medical and other fees in accordance with their means. There is no doubt that the inception of a complete State medical service is easier of accomplishment than many practitioners realize. The disadvantages of such a scheme are too numerous to detail here. It is our present belief that the State would serve the public best by coordinating the activities of private practitioners and voluntary hospitals with those of a State administrative medical service. It cannot be too strongly emphasized that any public health measures adopted by the State must be part of a carefully planned medical policy rather than a conglomeration of those *ad hoc* provisions which Sir Arthur Newsholme so vigorously deprecated.

I have endeavoured to clarify a difficult problem, leaving, I fear, a great deal unsaid which must have occurred to those of you who are older and more experienced than I am.

In conclusion, I wish to refer to two illuminating examples of the continuity of medical idealism. We are sometimes discouraged when our seniors tell us that our profession is becoming too commercial. I have been a member of our great profession for twenty-one years. During that period two great crises have occurred in which our members were not found wanting. During the Great War doctors of all ages willingly sacrificed their practices, their future prospects, their very lives, in order to keep step with their fellow citizens who answered the call to arms.

During the great financial depression a less conspicuous but even nobler duty has been willingly and conscientiously performed by our professional brethren in a manner which it would be superfluous to elaborate. Surely there can be no doubt that the ideals which our founders revered will be carefully preserved by the present and future generations of medical practitioners.

A TECHNIQUE FOR OSTEOSYNTHESIS OF FRACTURED NECK OF THE FEMUR BY THE SMITH-PETERSEN NAIL.

By R. Douglas Wright, M.S. (Melbourne),
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Internal fixation of fractured neck of the femur by the Smith-Petersen[1] nail has brought about a marked change of attitude to intracapsular fractures. Though the condition was previously considered almost hopeless, a comparatively minor operation now produces at least 75% good results.

The operative procedure of the originator is somewhat extensive. The capsule of the hip joint is cut through and the joint is opened. The only advantages of the method are reduction under direct vision and possibly removal of fibrous tissue tags from between the ends. The disadvantages are opening the joint resulting in a 10% death rate, due to sepsis, and immobilization of the limb for three to four weeks to allow the joint capsule to heal. A large operation scar which is tender and which limits movement for some time is also present.

Though shock does not appear to be great in the reported cases, a less extensive operation should make this inconsiderable.

Another method of implanting the nail in the head and neck was used. With the femur abducted, inverted and extended, and with shortening reduced, a vertical incision is made over the trochanter and through the ilio-tibial band. The nail is entered 1·5 centimetres below the great trochanteric ridge and aimed horizontally in a plane cutting the point of

insertion and the opposite anterior superior iliac spine. Frequently, however, the nail passes to the front or back of the head and is, of course, of no effect; a straight antero-posterior X ray picture is of no value in determining whether this has taken place. Most portable machines will not take a lateral view, so that this fault is discovered after the patient has left the theatre.

Methods using preliminary wires,[2] Röntgenographs and specially bored nails are, to say the least of it, troublesome, expensive, and often no more accurate than the "blind" method.

The problem was therefore to perfect a technique that did not make use of an incision which would give access of infection to the joint or which would delay the commencement of movement in the joint; which would allow certain placement of the nail in the head of the femur, and which would shorten the operation and not occasion the expense of money and time in Röntgenographs or new appliances.

With the limb extended, abducted, internally rotated and shortening reduced, an ~-shaped incision (Figure I) is used, the anterior limb lying ventral to the femur, extending 2·5 centimetres (one inch) distal to the trochanteric ridge. The anterior

Figure I.

The line of the skin incision is represented by the ~-shaped black line. The incision in the ilio-tibial band by the straight short line and that in the *gluteus maximus* is directly under the dorsal end of the skin incision.

curve is 1·25 centimetres (half an inch) above the trochanteric ridge and curves down along the back of the trochanter to 1·25 centimetres below the trochanteric ridge. The dorsal limb curves cranially for 2·5 to 5·0 centimetres (one to two inches) on to and in the direction of the fibres of the aponeurosis of the *musculus gluteus maximus*. Thus the scar is removed from pressure by the greater trochanter and lies in a natural fold of skin, except anteriorly.

The flap outlined by the anterior curve is then reflected and gives access to the ilio-tibial tract covering the *musculus vastus lateralis*. This is then incised vertically and retracted to front and back, exposing the femur. It is now an easy matter to pass a finger anteriorly to the femur deep to the *musculus vastus lateralis*, *rectus femoris* and through the *vastus intermedius*. It comes then to lie on the ilio-femoral ligament (Figures II and III)

Figure II.

The finger has been passed through the *musculus vastus intermedius* on to the ilio-femoral ligament and *tendo musculi psoas*. (Compare Figure III.)

Figure III.

The ilio-femoral ligament and lateral portion of the tendon of the psoas muscle have been cut away to show that the finger is directly anterior to the neck of the femur. (Compare Figure II.)

and can be pushed in under the ilio-psoas tendon if the patient is well relaxed, not otherwise. The placing of the finger under the ilio-psoas muscle is not necessary. An incision about 2·5 centimetres

(an inch) long is then made, splitting the aponeurosis of the *musculus gluteus maximus* medially and posteriorly to its insertion. A finger is then passed through the incision in the *gluteus maximus* and the tendons of the *obturator internus* and *externus* muscles are identified. The neck of the femur is felt between these two, and by passing the finger medially along the lower border of the *obturator internus* tendon the dorso-inferior edge of the acetabulum is easily found (Figure IV) and the length of nail requisite can be measured on the finger, 1·25 centimetres (half an inch) being allowed for the head of the femur. Now, with the

FIGURE IV.
The finger was passed through the incision in the *gluteus maximus* muscle, which was then reflected from its origin. It is shown with the tip on the dorso-inferior edge of the acetabulum.

finger and thumb of one hand on the anterior and posterior aspect of the neck, that at the posterior aspect being at the lower edge of the neck, it is an easy matter to enter the nail 1·5 centimetres below the trochanteric crest, pointing half way between the tips of the two digits in the horizontal axis and about 1·0 centimetre above the tip of the posterior digit in the coronal axis. The assistant then drives it into the bone. About 3·0 millimetres (one-eighth of an inch) of the nail are left protruding, firstly to maintain a grip of the comparatively thin cortex of the femur, and secondly to facilitate removal, if that be necessary. The fragments are then finally impacted with a suitable instrument (a one-inch cube of india-rubber, with a hole for the pin, and a mallet are quite satisfactory). The ilio-tibial band and gluteal aponeurosis are then sutured and the skin margins are approximated.

The whole operation is a comparatively minor procedure and could be done under local anæsthesia, though a gas anæsthetic is to be preferred.

After the position of the pin has been confirmed by X ray examination the patient is allowed and encouraged to move the limb on returning to bed. Weight-bearing is allowed in about a fortnight.

References.

(1) M. N. Smith-Petersen, Edwin Cave and George Vangarder: "Intracapsular Fractures of the Neck of the Femur: Treatment by Internal Fixation", *Archives of Surgery*, Volume XXIII, November, 1931, page 715.
(2) L. Jones: "Intracapsular Fractures of Neck of Femur", *Annals of Surgery*, Volume XCVII, February, 1933, page 237.

THE RELATION OF DIET TO TROPICAL ULCER: A PRELIMINARY REPORT.

By F. W. CLEMENTS, M.B., B.S., D.P.H., D.T.M. (Sydney).
(*From the School of Public Health and Tropical Medicine, University of Sydney.*[1])

TROPICAL ULCER, the greatest single cause of morbidity amongst the natives of Australia's island colonies, New Guinea and Papua, has for more than a century inspired the activities of workers in the tropics. Although much has been written of tropical ulcer, many points in the ætiology have yet to be revealed.

In this preliminary report no attempt will be made to review the literature, but some of the positive results obtained during an epidemiological survey of the incidence of tropical ulcer in natives on the Island of Manus, 350 miles north-west of Rabaul, the Mandated Territory of New Guinea, will be given. This island was selected for the investigation because it is inhabited by two distinct types of people—one group known to be free of tropical ulcer and the other yielding quite a few cases.

At the commencement of this investigation the well kept rolls of the Government Native Hospital, Lorengau, the Island of Manus, were searched and the names of all natives who had been treated for tropical ulcer in the six years 1926-1932 were noted, together with their village. Every one of the 120 villages was visited and the natives or their immediate relatives were interrogated.

The survey immediately revealed that those villages wherein tropical ulcer did not occur were: (*a*) the fishing villages of the south coast, whose inhabitants eat large quantities of fish; (*b*) a group of villages at the western end of the island, whose inhabitants, although formerly owning and cultivating land, have during the last two decades become fishermen in addition; (*c*) a cluster of villages towards the eastern end of the island, scattered along the banks of a river well stocked with fish. The natives who suffer from tropical ulcer are the agriculturists of the mainland; they grow taro and harvest sac sac, which form the bulk of their diet. Part of the products of the soil are bartered for small quantities of fish.

In Table I is set out the list of villages whose inhabitants eat sac sac augmented with about one-quarter pound of fish per person per week. These

[1] Endowed by the Commonwealth Department of Health.

villages are divided into two groups: (*a*) those deriving their fish from the north coast; (*b*) those deriving their fish from the south coast.

Table I.

North Coast.		South Coast.	
Village.	Percentage of Tropical Ulcer.	Village.	Percentage of Tropical Ulcer.
Labahan	9·7	Nanni	4·5
Bessahai	8·6	Driol	3·7
Savalau	7·5	Buyang	3·7
Maraman	7·3	Drawo	3·3
Lebbi	6·1	Kabano	3·3
Yiri	5·3	Likum	2·8
Lowakai	5·0	Kogo	1·8
Lowa	5·0	Lowis	1·4
Salien	4·5	Drabwi	1·4
Bubwe	4·0	Jasuhai	1·0
Nada	3·6	Peteya	0·6
Alukook	3·4		
Drehet	3·3		
Kahig	2·8		
Sahu	1·5		

The mean percentage incidence of tropical ulcer in all villagers living on sac sac is 4·12%. The standard deviation of the series is 2·2821 and the standard error of the mean 0·4564.

The mean percentage of tropical ulcer of the north coast group is 5·3%. The standard deviation of the series is 2·19 and the standard error of the mean 0·585. The mean percentage of the south coast group is 2·5%. The standard deviation of the series is 1·206 and the standard error of the mean 0·3813.

If these figures be analysed statistically it will be found that the difference between the mean of the north coast and the south coast groups is 2·8% (5·3–2·5) and the standard error of this difference is 0·6983. Thus the difference, 2·8, is four times its own standard error. Such a difference could occur only, by chance, once in 16,000 occasions, and therefore it is reasonable to assume that it is due to some external factor.

In Table II is set out a list of the villages whose inhabitants eat taro augmented by small amounts of fish (one-quarter of a pound per person per week). These are again divided into the same two groups, namely, those visiting the north coast and those visiting the south coast.

Table II.

North Coast.		South Coast.	
Village.	Percentage of Tropical Ulcer.	Village.	Percentage of Tropical Ulcer.
Warmundra	3·1	Kawaleap	1·8
Drano	3·1	Tengau	1·7
Sabon	2·9	Bowal	1·4
Bulehat	2·4	Soulu	1·3
Pundru	2·2	Taul	1·0
Mundubrio	1·9	Serra	1·0
Tengo	1·5	Leweiya	1·0
Lundret	1·4	Bulihan	0·0
Warrabi	0·9	Laban	0·0
Porsle	0·0	Yiringo	0·0
Bowat	0·0	Taiya	0·0
		Pwa	0·0
		Malei	0·0
		Pondro	0·0
		Warrembu	0·0

The mean percentage of tropical ulcer of all the taro-eating villagers is 1·14%. The standard deviation of the series is 0·975 and the standard error of the mean 0·1876.

The mean percentage of tropical ulcer of the north coast group is 1·7%. The standard deviation of the series is 1·057 and the standard error of the mean 0·3187, whilst the mean percentage of the south coast group is 0·659, the standard deviation of the series is 0·6316 and the standard error of the mean 0·1688.

The difference between the mean of the north and south coast groups is 1·077 (1·7–0·659) and the standard error of this difference is 0·3616. Thus the difference is 2·97 times its standard error. Such a difference would occur only, by chance, once in 500 times.

The fishing villages of the north coast have a mean percentage incidence of tropical ulcer of 1·97%. This is higher than both the south coast villages and the taro-eating mainlanders, but not nearly so high as among those eating sac sac.

Although these natives are fishermen, the rough seas accompanying the monsoon make fishing in the monsoon season impossible. The natives then eat sac sac that has been stored.

The following details concerning the diet of the natives seem advisable. Sac sac is obtained from the sago palm. When this is about fifteen years old it is felled and the trunk is split open. The interior is scraped out, washed and strained, and then stored. The composition as analysed at the School of Public Health and Tropical Medicine was found to be protein 1·2%, fat 0·6%, and carbohydrate 83·5%. The biological test for vitamins failed to reveal any vitamins in measurable quantities.

Taro has been investigated at the Bernice P. Bishop Museum, Honolulu, and has been found to have an average composition of protein 1·18%, fat nil, carbohydrate 24·0%, whilst the vitamin content was expressed as follows: "It contains twice as much vitamin *A* as white potatoes and as much as cabbage; and the vitamin *B* content is half that of whole grain (including embryo) and twice as much as milk."

The vitamin content of fish in general is vitamin *A* ++, vitamin B_1 +, vitamin B_2 +, vitamin *D* +++. The biological tests conducted at the School of Public Health and Tropical Medicine on fish after it had been treated in a manner similar to that in which the natives treat it, showed no change in its vitamin content.

In addition to fish, all natives very occasionally partake of pig when one is killed upon some ceremonial occasion. Furthermore, all natives eat a varying quantity of green leaves which contain small amounts of vitamin *A*, *B* and *C*, and, in addition, quite large quantities of shell lime, which provide an adequate supply of mineral salts.

Discussion.

The results detailed above all indicate that diet has a definite influence on the incidence of tropical ulcer. It would appear that natives eating a

reasonably well balanced diet, rich in protein and adequately supplied with vitamins, are immune from tropical ulcer, whilst natives on a less well balanced diet, with a high ratio of carbohydrate to protein and poorly supplied with vitamins, are suitable subjects for the development of tropical ulcer. The greatest incidence was found amongst those peoples living on a diet consisting almost entirely of carbohydrate with a poor supply of vitamins.

The exact rôle played by vitamin deficiency diseases amongst these people is only partly available at present; at least there is no evidence of the diseases caused by the absence of the vitamins *A*, B_1, *C* and *D*.

Vitamin B_2 is under review at the moment. The rôle of this vitamin in general metabolism is still rather vague, but it would appear from the work of Reader and Drummond (1926) and of Hartwell (1928) that it is intimately bound up with protein metabolism. Furthermore, it is evident that its absence from the diet has directly or indirectly a markedly detrimental effect on the metabolism of epithelial tissue.

It is at present postulated that a badly balanced diet associated with an inadequate supply of vitamin produces changes in the skin epithelium, which then makes it a suitable medium for the growth of the fusiform bacillus and spirochæte, so that when these enter a wound in such a skin it is rapidly converted into a tropical ulcer.

There is a further large group of villages in which it is hoped to work in the near future. In these villages the natives eat both taro and sac sac. The incidence of tropical ulcer here has been worked out, revealing that most of the cases of a village were confined to one or two families. It is intended to concentrate on this peculiar distribution, hoping to follow to its final conclusion this very important relationship of diet to tropical ulcer.

THE SURGICAL TREATMENT OF CHRONIC ULCER OF THE STOMACH.[1]

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Some seven years ago, when discussing the surgical treatment of gastro-duodenal ulceration (The Medical Journal of Australia, June 10, 1926), I wrote:

> Gastro-jejunostomy, the keystone of gastric surgery, still remains unchallenged as the operation of choice in the great majority of cases of gastro-duodenal ulceration . . . but it necessarily fails in adherent penetrating ulcers, ulcers remote from the pylorus and those that have undergone malignant degeneration.
>
> In certain cases this operation may be combined with pyloric occlusion, excision of an ulcer or with sequestration or cauterization of an ulcer, but the fitting procedure can be determined only by opening the abdomen.

Although a wave of radical gastric surgery has pervaded the upper part of the abdomen since those words were written, the pendulum has again returned to a position very closely approximating that of seven years ago.

The following remarks designate a humble attempt on the part of the author to place before this meeting a fair and unbiased account of the problems which confront the present-day surgeon in endeavouring to bring relief to those patients with gastric ulcer in whom medical treatment has failed to effect a cure.

Until 1931, when the late results of the medical treatment of gastric ulcer were carefully investigated in various clinics by Mr. Rendle Short, and statistical evidence of an incontrovertible character was published, only scant information was available whereby it was possible to assess the real and permanent value of the modern alkaline treatment of gastric ulcer.

Since that date, however, there has been fairly general agreement amongst gastro-enterologists with regard to the ultimate prospects in the best clinics from standard medical treatment, namely, that, although three out of four patients may be rendered symptom-free, only 40% of the patients will remain well, whilst 15% to 20% will be dead in ten years.

Patients in the early stages do well; those whose condition is of long standing do badly. Nielsen states that if a relapse is going to take place after medical treatment, it nearly always occurs within two years. It must be realized, however, that in many instances failure is due to the fact that the patient, owing to the nature of his work, is unable to follow out the details of treatment.

A really prolonged course, to be followed by regulated diet habits, is an ideal not often realizable by patients of the hospital class, hence the appeal of surgery, with its prospect of more rapid cure and a reduced risk of relapse under normal conditions of life to this particular class.

In the leader of *The British Medical Journal* of December 7, 1929, three pertinent statements are promulgated: first, that 10% of ulcers of the stomach not treated surgically perforate; second, that approximately 20% of patients with gastric ulcer die from hæmorrhage if not treated surgically; and third, that carcinoma complicates from 6% to 10% of all cases of chronic ulcer.

On the other hand, there is no doubt that the alkaline treatment can and does cure gastric ulcer, and no patient with an uncomplicated ulcer should ever be submitted to operation until skilled medical treatment has been instituted and has failed. In other words, surgery should not be contemplated unless medical treatment has failed to abolish both symptoms and signs, or symptoms have recurred

[1] Read at a clinical meeting of the staff of the New South Wales Community Hospital on August 17, 1933.

shortly after an adequate course of medical treatment. Intractable ulcers only should come under the hands of the surgeon.

The surgeon must remember that gastric ulcer is not in its essential nature a fatal disease, hence the procedure adopted, whilst effective, must be that which can be safely borne by the patient.

TABLE I.
Showing mortality from acute and chronic gastric ulcer, from 1927 to 1932, in New South Wales.

Year.	Males.	Females.	Total Number of Persons.	Rates per 100,000 of Population.
1927	69	25	94	3·96
1928	66	29	95	3·92
1929	70	15	85	3·45
1930	61	17	78	3·13
1931	72	24	96	3·82
1932	73	23	96	3·79

In every operation for the cure of this malady two factors, mechanical and chemical, have to be considered. First, every operation in which stomach is anastomosed to proximal small intestine should lead to more rapid emptying of the former viscus, the ulcer being wholly or partially side-tracked from the main food stream.

Second, diversion of alkaline contents from small intestine into stomach must necessarily reduce gastric acidity. Further, partial gastrectomy removes portion of the acid-secreting mucosa. One must deprecate the statement: "the ulcer-bearing portion is almost, if not quite, synonymous with the acid-secreting portion of the stomach, and thus by partial gastrectomy the acid is reduced or completely abolished." H. E. Radasch has shown that the acid-secreting cells cease abruptly after covering 63·09% and 81·55% of the distances along lesser and greater curvatures respectively.

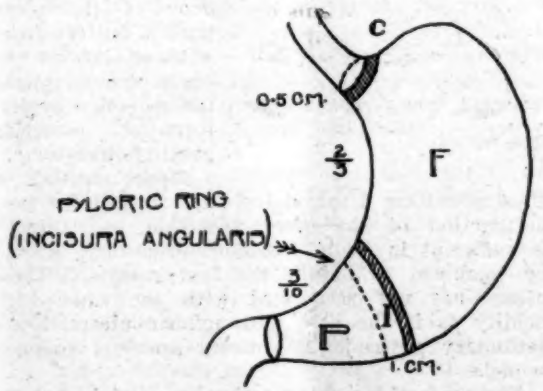

FIGURE I.
Showing distribution of glands in human stomach (after Y. Miyagawa). C = cardiac glands; F = fundal or oxyntic glands; I = intermediate zone or "transitional gland area"; P = pyloric glands.

Surgical treatment will vary according to the duration and size of the ulcer, its location, and according to the general condition of the patient. Further, the particular surgical manœuvre for the various individual types of ulcer must vary considerably with different surgeons, because each will adopt that method which in his hands has proved to be the most successful.

On the one hand, Professor Hans Finsterer regards no gastric ulcer as irremovable and performs resection in practically every case, whatever the age of the patient and however great the technical difficulties, proclaiming 98% of cures and an operative mortality of only 4%. On the other hand, Mr. H. J. Paterson claims only 7% of poor results from gastro-jejunostomy, usually performed by the anterior route, with an operative mortality rate of less than 1%. Any surgeon would, however, be ill advised to perform one set operation for all gastric ulcers; the operation should be made to fit the ulcer and not the ulcer the operation.

The aim of surgery is to remove or to correct the pathological condition present and at the same time to restore as far as possible the normal function of the involved viscus.

Analysis of the after-results of gastro-jejunostomy has shown that failure to relieve symptoms was apt to occur the further from the pylorus the ulcer was situated. On this observation was founded the practice of performing gastro-jejunostomy for pyloric ulcers and, unless there be some cogent contraindication, of excising ulcers situated elsewhere.

The results of pyloroplasty and gastro-duodenostomy being inferior to those of gastro-jejunostomy, few surgeons nowadays perform operations of this type.

Types of Ulcer.

From the point of view of treatment, ulcers of the stomach may be somewhat artificially divided into five groups.

Pyloric Ulcers.

I am in agreement with the observations of Mr. C. A. Joll that ulcers which begin at, or within an inch of, the gastric aspect of the pylorus are very rare, and that nearly all cases of cicatricial stenosis at the pylorus are due to duodenal ulcers, the scar tissue resulting from which has spread to the left, so that the exact site of origin of the ulcer is obscured. Probably no operation in surgery gives greater satisfaction for pyloric ulcer than gastro-jejunostomy, especially if pyloric stenosis be present. In the absence of stenosis many surgeons will perform sequestration or stitch resection, thereby artificially narrowing the pylorus.

As gastro-jejunostomy fails to secure healing in some 2% to 8% of cases, pylorectomy of the Billroth II type may become necessary at a subsequent date.

Removal of the antrum (vestibule), representing the hormonal stimulus to gastric secretion, tends to reduce hyperacidity, thereby mitigating the risk of development of a gastro-jejunal ulcer.

Although the validity of Edkins's experiments has been questioned, more recent work has demonstrated the specificity of gastrin, hence the advisability of surgeons adhering to Edkins's theory in preference to the motility-blood-flow hypothesis of Lim, Ivy and McCarthy until such time as their physiological colleagues have unravelled the mysteries of gastric secretion.

If technical difficulties preclude the above operation, or if the gastro-jejunostomy opening has been placed so close to the pylorus that suture of the proximal end of the stomach cannot be performed without infringement upon the region of the stoma, then Eiselsberg's method of pyloric or antral exclusion should be substituted. This operation, however, should not be attempted if there be any pyloric obstruction.

Gosset and Leriche have stated that gastro-jejunal ulceration is particularly frequent after antral exclusion (25%).

F. W. Bancroft recommends that the mucous membrane of the pyloric antrum should be "coned out" as far as the pylorus and then ligatured prior to stitching up the shell composed of serous and muscular layers, the idea being that retrograde filling of the pyloric antrum might excite an increased secretion of gastric juice, tending to produce gastro-jejunal ulcer.

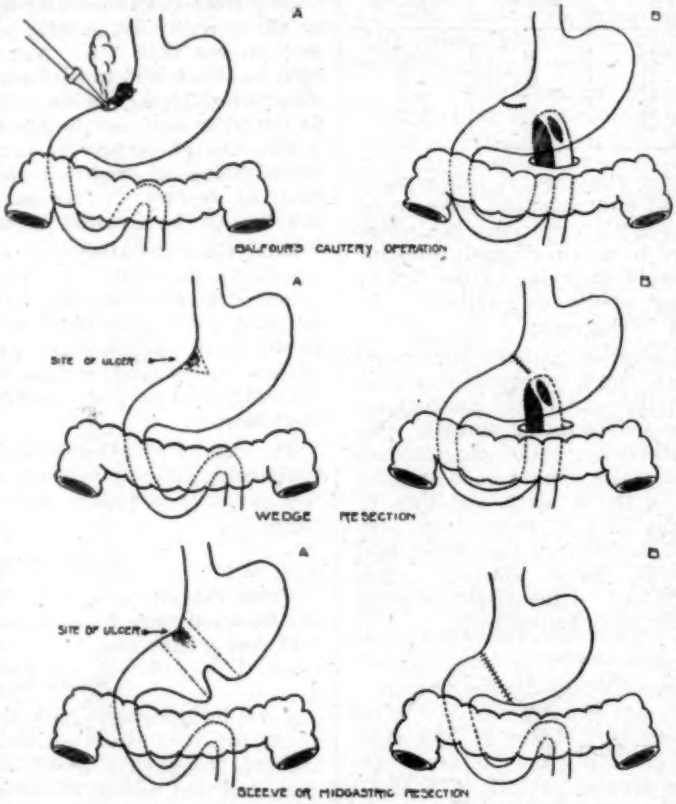

Figure II.

Small Ulcers (Fixed or Mobile) Involving the Lower Two-Thirds of the Lesser Curvature.

Lying proximal to the small ulcer involving the lower two-thirds of the lesser curvature is a relatively large area of stomach, which viscus is, however, generally small in size. The operation of choice for these "trouser-button" ulcers is a local resection either by knife or cautery, combined with gastro-jejunostomy. No surgeon nowadays performs resection alone, for the general opinion is that the relief obtained thereby is but temporary, the ulcer tending to recur.

In investigating the after-history of five hundred and thirty-eight cases of gastro-jejunostomy performed by various surgeons, Dr. A. P. Luff found that, whilst 50·9% of good results were obtained by short-circuiting alone, the percentage rose to 91·7% when this operation was combined with removal or infolding of the ulcer.

Wedge resection, which commonly comprises excision of a saddle-shaped area containing the ulcer from the lesser curvature, causes delay in emptying time, which appears to be brought about by a disturbance of coordination of muscular contraction originating from interference with the innervation and vascular supply of the stomach and its musculature.

My enthusiasm for this operation was abruptly checked some fifteen years ago through my friend Dr. J. G. Edwards remarking that the cure was worse than the disease. Investigation in dogs has supported, in part, his contention, for this procedure impairs both the tone and motor function of the stomach to a far greater extent than even segmental or sleeve resection.

The lesser curvature is the approximate axis of peristalsis.

Balfour punctures and destroys the floor of the ulcer with a cautery from without, infolds the edges, and completes the operation by performing posterior gastro-jejunostomy.

Hence neither a short-circuiting (physiological) operation nor destruction of the ulcer (excision or cautery) is sufficient in itself, but both procedures should be combined to obtain the best results. These ulcers are not associated with the same high acidity as is the case with pyloric ulcers, hence secondary gastro-jejunal ulcers are less common sequelæ.

The operation of posterior gastro-jejunostomy combined with removal or infolding of an ulcer has a post-operative mortality of 4·6% (Luff).

Mouse-Hole Ulcers.

With large deep penetrating or "mouse-hole" ulcers implicating chiefly the posterior wall, but tending to extend to involve the lesser curvature,

the ulcer crater may be as large as a five shilling piece and the base is frequently found to be adherent to pancreas, liver *et cetera*.

These patients respond very poorly or not at all to medical treatment, but a well planned operation gives immediate and complete relief, which, with reasonable after-care, is usually lasting. As the technical difficulties of dealing directly with such an ulcer may be more easily and safely overcome by performing a partial gastrectomy of the retrocolic Pólya type, this operation becomes the method of election.

The penetrating area is well defined by means of swab pressure, encircled by the finger, and the ulcer border is separated from pancreas or liver by means of scalpel or scissors, the base being left *in situ*.

The hole in the posterior wall of the stomach is temporarily closed by suture, the surface of the ulcer is cleansed with alcohol (never cautery) and resection is proceeded with.

Owing to the risk of setting up acute pancreatitis or forming a pancreatic fistula, removal of an ulcer base from the body of the pancreas is not only difficult, but extremely dangerous.

Repeated blood transfusions, glucose-saline infusions, and gastric lavage enable the above operation to be performed without prohibitive risks. Removal of the pyloric third of the stomach leads to a reduction of both intensity and duration of the gastric phase of secretion (Smidt, Koennecke and Jungermann). In women, however, removal of the "ulcer-bearing segment" is liable to be followed by a post-operative anæmia of varying severity; hence Schoemaker's operation or sleeve or mid-gastric resection may be substituted.

Despite the above drawback, three-quarters of the female patients exhibit 100% efficiency for work after partial gastrectomy.

With segmental or sleeve resection an annular portion of the stomach containing the ulcer is excised and the divided ends are united terminally to reform the viscus. This method, however, suffers from the disadvantage that the performance of gastro-jejunostomy frequently becomes extremely difficult, but an efficient substitute is gastro-duodenostomy.

When extensive ulceration or massive adhesion to surrounding structures prohibits the above operations, then gastro-jejunostomy becomes indicated and very often only the anterior operation will be feasible, the only other alternative being jejunostomy to allow of direct feeding into the jejunum instead of the stomach.

H. J. Lameris claims so satisfactory results from the last mentioned operation for extensive gastric ulcers that he has given up partial gastrectomy.

Hour-Glass Contraction of the Stomach.

In the group comprising hour-glass contraction of the stomach one finds that extensive cicatrization from a saddle-shaped ulcer has given rise to a bilocular stomach. The surgical treatment will be governed by various considerations, such as the presence or absence of pyloric stenosis, the exact site of the stricture, fixation of the base of the ulcer to other viscera, and last, but not least, the sex of the patient.

The operations of choice are gastro-gastrostomy, with or without gastro-jejunostomy, in the event of an associated pyloric stenosis, or "midgastric" or "partial" gastrectomy.

As 90% of the cases of hour-glass stomach occur in women, gastro-gastrostomy must necessarily become our first preference, but, although the difficulty of post-operative anæmia is thereby overcome, no attempt is made to deal with the actual ulcer.

It is interesting to note in the British Medical Association's collective investigation series that, whilst partial gastrectomy was performed in half the cases of hour-glass contraction and some form of gastro-jejunostomy in another 45%, gastro-gastrostomy was not even mentioned as a method of treatment.

Cardiac or "Letter-Box" Ulcers.

Cardiac or "letter-box" ulcers involving the upper third of the lesser curvature occur commonly in the vicinity of the œsophageal opening. These ulcers, frequently penetrating in character and often associated with a duodenal or "trouser-button" ulcer, are particularly common in men between fifty and sixty years of age.

Surgical access necessitates division of the left gastric artery, as it runs anteriorly in the left pancreatico-gastric fold and frequently demands resection of the sternal attachment of the left seventh costal cartilage in accordance with the method of Mikulicz, but such a procedure is prone to leave weak abdominal walls and infected cartilage.

In certain cases an additional incision will have to be made below the left breast in order that the seventh, eighth and ninth ribs may be divided.

Division of the left gastric artery permits of free mobilization of the lesser curvature. The distal end of the vessel, together with the lesser omentum, is stripped downwards along the lesser curvature until the ulcer is reached. Local resection of the ulcer or partial gastrectomy may be then undertaken.

It is extremely doubtful whether an almost complete gastrectomy is justifiable for simple ulceration.

To overcome the serious technical difficulties of performing an anastomosis with a small gastric stump beneath the left cupola of the diaphragm Victor Pauchet has devised a modification of Pólya's operation, which he designates "groove resection", wherein a tongue-like extension, including the ulcer, is removed from the lesser curvature. The resected part includes pylorus, pyloric antrum, and the whole of the lesser curvature, including the ulcer up to the vicinity of the cardiac opening. Reestablishment of the gastro-intestinal tract is completed by termino-lateral implantation of the stomach into the jejunum (Pólya), either by short retrocolic or a long precolic loop.

When such radical measures are contraindicated, amongst the so-called conservative measures jejunostomy becomes the procedure of election.

Nordenbos recommends gastro-jejunostomy, combined with gastrostomy, the rubber tube passing across the lumen of the stomach into the efferent jejunal loop (transgastric jejunostomy). Jejunostomy, however, does not place the stomach at absolute rest, for jejunal feeding induces a subnormal flow of gastric juice.

In order to minimize the cephalic phase of gastric secretion (psychic and reflex), E. H. Mensing has advocated that the patient should be rigidly removed from the sight and smell of all food, and that feeding be maintained in continuous small gushes by means of an electric pump, the normal squirting of chyme into the small intestine being thus imitated. Ulcers of the body of the stomach are not, however, usually associated with hyperacidity, hence the extreme rarity of gastro-jejunal ulcer following gastro-jejunostomy for this type of lesion.

Cholecysto-gastrostomy, advocated and practised by L. R. Braithwaite, is based on the false conception that neutralization of chyme by the regurgitant fluid through a gastro-jejunostomy stoma is due mainly, if not entirely, to the contained bile.

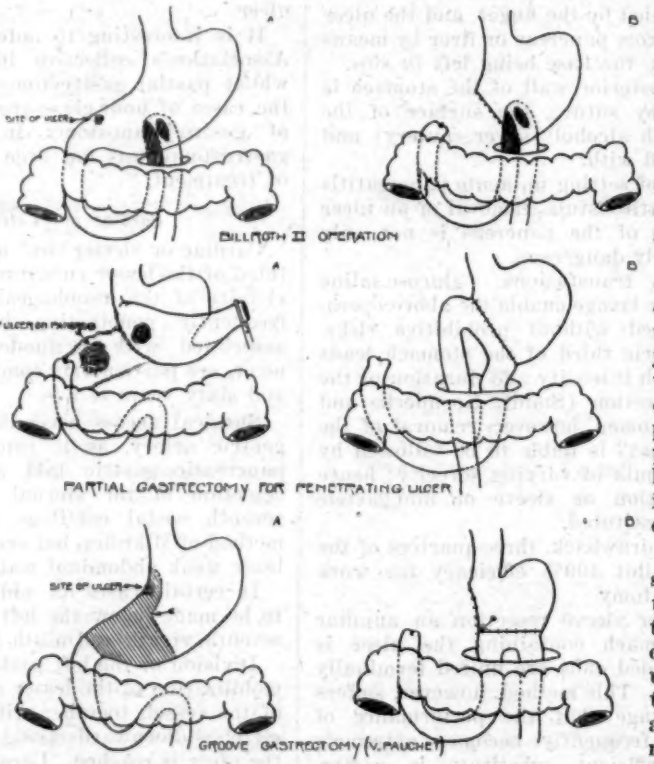

FIGURE III.

Series of Cases.

In Table II are set out the details of twenty-three cases. Although a series of twenty-three cases does not furnish sufficient evidence from which to draw dogmatic conclusions as to treatment, yet four pertinent tenets emerge therefrom.

1. The appellation "ulcer-bearing area" as applied to the pyloric third of the stomach is a misnomer and misleading, hence this term should be expunged from surgical literature.

2. In a small proportion of cases, approximately 5%, resection combined with gastro-jejunostomy fails to secure healing of a pyloric or lesser curvature ulcer.

3. Gastro-enterostomy does not prevent the formation of peptic ulcer.

4. Owing to the risk of diagnostic errors, partial gastrectomy becomes the treatment of election for massive penetrating ulcers, especially in subjects under forty years of age.

Expectancy of Cure.

So much for the surgical treatment of gastric ulcer. May I now direct your attention towards the expectancy of cure?

For approximately half a century it has been the custom to talk glibly about the percentage of cures from various medical and surgical procedures, but any standards or technical details whereby these "alleged cures" may be gauged are conspicuous by their absence.

If "cure" be synonymous with "freedom from symptoms", then gastro-jejunostomy will provide 98% to 99% of cures prior to the patients leaving hospital, which, in the language of Euclid, is *"reductio ad absurdum"*.

Dr. Victor J. Kinsella has pointed out that both pain and tenderness are directly dependent upon raised tissue tension due to an acute local inflammatory reaction, and that when the inflammation subsides the patient enters one of his usual periods of remission, during which, however, the ulcer still remains unhealed.

The progress of a gastric ulcer may, however, be checked by quarterly examinations by a skilled radiographer, but one must deprecate the claims of enthusiastic physicians who state that they can witness large deep gastric ulcers healing in the course of a few weeks.

Dr. A. E. Barclay has demonstrated that the depth of a niche is chiefly dependent upon inflammatory swelling of the adjacent mucosa and that as this subsides the recess rapidly decreases in depth, giving the false impression that the ulcer is healing.

A simpler method is a monthly examination of fæces for occult blood. Gregersen's modification of

TABLE II.

Showing operations performed in a consecutive series of gastric ulcer cases between June, 1929, and June, 1933.

Patient.	Age.	Sex.	Date of Operation.	Type of Ulcer.	Type of Operation.	Result.	Gastric Symptoms on Discharge from Hospital.	Remarks.
P.M.G.	49	M.	28.9.29	Cardiac ulcer.	Balfour's operation.	Discharged 29.11.29.	Nil.	
H.C.	37	M.	5.10.29	Large posterior penetrating ulcer combined with pyloric ulcer.	Anterior gastro-jejunostomy.	23.1.30 transferred to Reception House.	Nil.	Well until 18.1.30, when impersonated the Messiah.
C.R.	31	F.	27.11.30	Large penetrating ulcer of posterior wall and lesser curvature.	Balfour's operation and posterior gastro-jejunostomy.	Died of adeno-carcinoma of stomach 21.3.32.	——	Sippey's diet 25.8.30 to 18.9.30. Laparotomy 25.8.31 and inoperable carcinoma found.
J.C.	76	M.	7.1.31	Pyloric ulcer.	Cholecystectomy and posterior gastro-jejunostomy.	Transferred to Liverpool Hospital 11.2.31.	Nil.	Vomited "coffee grounds" 4.3.30.
C.M.	56	M.	21.1.31	Pyloric ulcer.	Posterior gastro-jejunostomy.	Discharged 7.9.31.	Nil.	
D.C.	36	F.	31.1.31	Pyloric ulcer.	Sequestration and posterior gastro-jejunostomy.	Discharged 24.2.31.	Attacks of chronic cholecystitis since 18.9.31.	Large hæmatemesis June, 1929. Medical treatment. "Nocturnal dyspepsia" (? chronic cholecystitis) 28.1.32 to 14.2.32.
H.R.H.	27	M.	25.3.31	Extensive penetrating ulcer involving middle third lesser curvature.	Balfour's operation and posterior gastro-jejunostomy.	Died from round celled sarcoma of stomach 6.8.31.	——	Mistaken. diagnosis at operation.
B.C.	58	M.	10.2.32	Posterior penetrating ulcer.	Original Pólya.	Discharged 15.5.32.	Nil.	Died of coronary thrombosis 2.8.32.
T.R.	69	M.	30.3.32	Extensive penetrating saddle-back ulcer.	Posterior gastro-jejunostomy and jejunostomy.	Died of pneumonia 6.1.33.	——	Gained sixteen pounds prior to fatal illness.
D.H.C.	39	M.	28.4.32	Pyloric ulcer stomach adherent to liver and abdominal wall.	Posterior gastro-jejunostomy and omental wrap.	Discharged 18.10.32	Nil.	Perforated duodenal ulcer 18.12.31.
F.A.	33	M.	18.5.32	Pyloric ulcer.	Billroth II.	Discharged 15.6.32.	Occasional vomiting attacks since discharge.	Posterior gastro-jejunostomy June, 1928.
A.B.	64	M.	20.5.32	Large penetrating cardiac ulcer.	Trans-gastric jejunostomy.	Died *post*-"Avertin" pneumonia.	——	
E.C.	41	F.	25.8.32	Hour-glass stomach.	Balfour's operation and gastro-gastrostomy.	Discharged 23.9.32.	Nil.	Copious melæna 23.11.31 on admission, hæmoglobin 54%.
T.P.	40	M.	19.10.32	Penetrating cardiac ulcer.	Balfour's operation.	Discharged 3.12.32.	Free from symptoms for five months.	Readmitted with lesser curvature ulcer 21.6.33.
R.B.	65	M.	9.11.32	Pyloric ulcer.	Stitch resection, posterior gastro-jejunostomy.	Transferred to Newington Hospital 6.1.33.	Nil.	Hæmoglobin value 30% 14.10.32.
T.I.	37	M.	15.2.33	Penetrating ulcer of lesser curvature.	Balfour's operation and posterior gastro-jejunostomy.	Discharged to yard 24.4.33.	Nil.	Cholecystectomy November, 1932

TABLE II.—*Continued.*

Patient.	Age.	Sex.	Date of Operation.	Type of Ulcer.	Type of Operation.	Result.	Gastric Symptoms on Discharge from Hospital.	Remarks.
R.R.	37	M.	15.2.33	Pyloric ulcer.	Posterior gastro-jejunostomy.	Discharged 6.6.33.	Occasional vomiting attacks since discharge.	Gained ten pounds in weight prior to discharge.
J.O'M.	21	M.	7.3.33	Pyloric ulcer.	Sequestration, posterior gastro-jejunostomy, and cholecystectomy.	Discharged 25.3.33.	Nil.	Occult blood 3.5.33, + +; 8.6.33, + ; 24.7.33, trace; 28.8.33, nil; 12.12.33, test meal, hyperchlorhydria, no blood.
E.S.	55	M.	23.3.33	Pyloric ulcer.	Stitch resection.	Discharged to yard 9.5.33.	Nil.	Posterior gastro-jejunostomy for duodenal ulcer, 1927.
R.E.	48	M.	29.3.33	Penetrating lesser curvature ulcer.	Excision *plus* posterior gastro-jejunostomy.	Discharged 10.5.33.	Nil.	Operated perforated duodenal ulcer 6.5.31.
G.S.W.	44	M.	19.4.33	Lesser curvature ulcer.	Balfour's operation and posterior gastro-jejunostomy.	Discharged 22.5.33.	Nil.	Attack of pain in right iliac fossa due to right enteroptosis 8.6.33.
N.P.	49	F.	19.5.33	Pyloric ulcer.	Sequestration posterior gastro-jejunostomy and cholecystectomy.	Discharged 15.6.33.	Nil.	
J.J.C.	37	M.	21.5.33	Anterior wall.	Balfour's operation and posterior gastro-jejunostomy.	Discharged.	Nil.	

the benzidine test is extremely simple and may be carried out by any individual possessing an elementary knowledge of chemistry.

Powders are made up containing 0·2 gramme of barium peroxide and 0·025 gramme of pure benzidine; if put up in wax papers they will keep indefinitely. Just before the test one powder is dissolved in five cubic centimetres of a freshly prepared solution (50%) of acetic acid. A "button" of fæces is taken by means of a clean glass rod from the centre of the stool; it is important to take it from the centre, as no risk of contamination in the lower bowel, as from hæmorrhoids, must be run.

This portion of fæces is smeared on to a clean glass slide and a few drops of the solution run on to the smear. A blue or blue-green colour develops within a minute if the test is positive, and the reaction is graded according to the depth of the colour and the time it takes to develop.

Gregersen recognizes three grades: +, a pale blue or green colour within sixty seconds; ++, a definite pale blue in twelve to fifteen seconds; +++, deep blue within three seconds. These grades should be adhered to, except that a blue-green colour developing after thirty seconds should be labelled "faint +" and regarded with suspicion.

In spite of the usual statement to the contrary, no alteration from the customary post-operative diet will be necessary, provided that liver extract, hæmoglobin, red bone marrow and other similar hæmatinic remedies be rigidly excluded.

A gastric ulcer may be regarded as healed when, while the patient is taking full diet, there is an absence of occult blood from the stools on three separate examinations made at monthly intervals and when radiological examination by an expert radiologist at the end of three months reveals no trace of an active ulcer.

Dr. A. P. Luff found that three-quarters of the patients returned to full work within three months of the date of the operation.

It has been claimed that no greater tribute can be paid to the worth of surgical treatment than recognition of the fact that 70% to 90% of cures have occurred amongst those patients who could not get relief by any other means. Be that as it may, such results are not obtainable, however, without the closest cooperation of both medical and surgical treatment.

All patients with chronic gastric ulcer should therefore receive medical treatment, either alone or in conjunction with the operation, preferably before, but most certainly after operation.

In view of the above remarks, it will be obvious that a well equipped follow-up department is a *sine qua non* of every up-to-date gastro-enterological unit, without which too optimistic a view will be taken of end-results and unsatisfactory operative measures persisted with.

Conclusion.

1. Surgery must supplement and not replace medical measures in the treatment of chronic gastric ulcer.

2. In recent uncomplicated cases of chronic gastric ulcer operation should not be performed unless skilled medical treatment has failed.

3. With the present incomplete state of our knowledge suitable operative procedures would appear to be the best treatment for refractory chronic gastric ulcers, wherever situated.

Acknowledgements.

I beg to acknowledge the inestimable help received from the radiological observations of Dr. Colin Cole and Dr. B. P. Anderson Stuart, as well as the valuable assistance and many salutary suggestions that have ever been so freely extended by the medical and nursing staffs of both State and New South Wales Community Hospitals.

Reviews.

THE SOCIAL PROBLEM AND HEREDITY.

MR. E. J. LIDBETTER, of the London County Council, has in "Heredity and the Social Problem Group" presented his readers with a work that is likely to become a classic. After a quarter of a century of research, he has compiled no less than twenty-six interlocking pedigrees of the lower strata of East London poor law area, with a population of 120,000. Such a bald statement gives no adequate picture of the work involved. As an example, Pedigree Number 1 commences with the son of a Scottish mason born in the year 1812. In the fourth generation no less than 54 members are traced, and in the fifth 72, whilst in a subsequent one 134 receive mention. The diagrams are clearly figured to show those who were in receipt of poor law assistance, maintained in poor law schools, certified of unsound mind or as imbeciles. In addition, there is a record of blind, alcoholic, criminal, epileptic and tuberculous members. Only those who have engaged in research work can realize the vast amount of time and energy expended in the task. As Major Leonard Darwin, Honorary President of the Eugenics Society, writes in his foreword: "Its counterpart does not exist elsewhere, and students of sociology will consult it for many years to come."

The work is the outcome of a committee of the Eugenic Education Society in 1910, but owing to war and other causes the research had to be carried on under difficulties almost solely by Mr. Lidbetter himself. The author does not attempt to formulate conclusions; these will be made in subsequent volumes, of which the one under review is the forerunner. We must agree, however, with Major Huxley that: "One conclusion may, however, I submit, now safely be drawn, and that is that as long as this wretched stream of social inadequacy continues to flow in the appalling way indicated by these pedigrees, and whatever may be the parts played by nature and nurture, the nation would gain greatly if all those definitely inferior to the bulk of their fellow citizens were to have no children or but small families."

The criticism may be levelled at the research that genetics must be considered in relation to environment, and that the latter is not sufficiently stressed, but it is questionable if ideal surroundings would have had much influence on the remarkable family history of eye defects as related by Mr. E. Nettleship, and of insanity by Sir Frederick Mott, both of whose well known genealogical trees dealing with these factors were based on the families so carefully collated in this book. One of the outstanding facts which emerge from this study is that the older view that a single defective ancestor gives rise to a progressively increasing line, comparable to a tree growing from a single root, is wrong, since rather is it a forest with interlocking roots and branches. Poor human material tends to mate with its like, the result being increase on a broad front.

A perusal of "Heredity and the Social Problem Group" gives rise to serious thought, since it outlines in its stark tragedy, the social cancer which bids fair to undermine civilization. So long as the higher strata of society practise birth control and the lower members are not merely fertile, but are encouraged to breed by State grants of many kinds, the risk to the race must not be under-estimated. If Mr. Lidbetter's research does no more than focus attention on the urgent need for genetic research, it will have achieved something of merit. For the physician whose work of necessity brings him into contact with such sociological problems its appeal is obvious.

[1] "Heredity and the Social Problem Group", by E. J. Lidbetter; Volume I; 1933. London: Edward Arnold and Company. Crown 4to., pp. 160, with charts. Price: 21s. net.

THE RENAISSANCE OF CLINICAL MEDICINE.

THERE are signs and portents that clinical medicine is coming into its own again. During the last twenty years the various ancillary studies have flourished and clinical science has fallen into partial desuetude. Morbid anatomy, bacteriology, radiology, biological chemistry, electrocardiography were primarily sponsored by clinical medicine; each has now outgrown its early humble home, that small room adjoining a ward, and inhabits a palace all its own. Not for one moment would any sane clinician discount the value of these aids in the elucidation and management of human disease, but it must be acknowledged that enthusiasm for these later developments is sometimes carried too far. Work at the bedside has languished; it should have been stimulated.

Yet clinical medicine had its great days. How gracefully are the annals of British medicine adorned by that classic of medical literature, Allbutt and Rolleston's "System of Medicine", a book "that the medical literature of any language could be proud of" and one that "must stand as a worthy monument to its originator and first editor". Allbutt himself was "the ideal physician and an investigator who approached the study of medicine in a truly scientific spirit". He and his collaborators splendidly achieved their aim of describing fully and accurately the signs and symptoms of disease. Throughout the whole work the viewpoint is essentially clinical. The descriptions of the various abnormal conditions are vivid; they live in the memory of the reader. They bear the hall-mark of exactitude and show the keen observation of the clinical scientist.

In more recent times the writings of the great Osler, especially the excellent students' book on "The Principles and Practice of Medicine", have upheld clinical traditions. It is an interesting point that the origin of the Rockefeller Foundation lay in the fact that a layman associated with the affairs of John D. Rockefeller, happening to peruse Osler's book, was so enthralled with it that he prevailed on Rockefeller to devote some of his wealth to the promotion of medical research. Harvey Cushing says that an important claim for the name of Osler to live in the memory of American medical students is the fact that it was he who made it possible for them to work at the bedside in the wards. It was the stimulating character of Osler's clinical teaching that was his outstanding attribute.

To James Mackenzie clinical science was the grand essential. During his early professional years, in general practice among working class people, he laid the foundation of his vast knowledge of circulatory disease. His studies led him to develop technical aids to clinical work, but he took care that the polygraph and electrocardiograph were kept in their rightful place. Bedside work remained paramount. It was one of the regrets of his later years that some of his followers paid more attention to these technical aids than to the clinical work that had called them into being. Then came that dramatic incident when Mackenzie, voluntarily giving up his place as the chief consultant in cardiology in London, set out to found the

Saint Andrews Institute for Clinical Research. He aimed to deal with disease at its inception; the first symptoms of abnormality were to be sought for in the hope of minimizing the more serious effects of fully developed disease.

One of the latest public utterances on this subject of clinical science has been Sir Thomas Lewis's Harveian Oration at the Royal College of Physicians in London in October last. Lewis, though appreciating the value of laboratory and other investigations, regards them as adjuncts to the main purpose of clinical investigation. Above all he holds that we must guard ourselves against the obsession tending to grow up in recent years, that useful discoveries are purely the prerogative of laboratories. He stresses the need for integration of laboratory research with careful and repeated clinical observation and shows that this integration is essential to the vitality of medical research. Clinical science, says Lewis, should lead the medical sciences of the future as it led in the past.

Truly the whole structure of medical practice and thought should be founded on the intimate study of the sick person. Our professional forebears knew that; we must remember it.

A perusal of Savill's "System of Clinical Medicine",[1] the new ninth edition of which has just been published, has called forth these remarks on the past glories, more recent vicissitudes, present trend and future hopes of clinical science. It is thirty years since the first edition of Savill's book appeared, and it still holds its place as the best English text book on the subject. Its general form remains as in previous editions, and the remarks in our review of the eighth edition (THE MEDICAL JOURNAL OF AUSTRALIA, February 21, 1931) still apply.

Dr. Agnes Savill edits the volume, and she has the assistance of sixteen other workers. In the list of collaborators one notices many famous names: N. Hamilton Fairley, J. Strickland Goodall, Dame Louise McIlroy, S. W. Patterson and J. D. Rolleston.

The book is a good one and is well balanced. It is comprehensive and concise. It is a safe and sure guide for the inquiring clinician, and the claim of the writers to have brought the material up to date must be admitted. Cushing's syndrome, Ayerza's disease, *osteitis fibrosa*, subarachnoid hæmorrhage, agranulocytic angina, these are some of the subjects dealt with in the book for the first time. Clinical science is surely the basis of medicine, and Savill's book is a trusty guide for the worker at the bedside.

IRRADIATION IN GYNÆCOLOGY.

"RADIOTHERAPY IN DISEASES OF WOMEN", by Malcolm Donaldson, is a readable book of 130 pages, including an index.[2] Perhaps its chief interest for surgeons lies in the fact that its author, primarily trained as a surgeon, has renounced surgery for radiotherapy in many gynæcological conditions, both malignant and benign.

Donaldson was one of the first British gynæcologists to recognize the growing importance of radiotherapy in his specialty. By promptly mastering its theory and technique he thereby prevented the drifting away of much legitimate gynæcological practice to a new race of specialists, the radiotherapeutists. Like most surgeons attracted to radiotherapy, he has worked almost entirely with γ radiations, and he denies "any intention to describe X-ray treatment in detail".

The book is divided into three sections, entitled general, cancer, and benign conditions.

The first section deals with physical conditions, the biological action of radium, and methods of applying radium. The whole is interestingly written and omits nothing of significance.

In the opening chapter of the second section the author discusses the cancer problem under four headings: (i) ætiology, (ii) methods for making an early diagnosis and the necessary organization for applying these methods, (iii) the education of the public, (iv) the treatment and, where possible, prevention. In this chapter one can detect the pen of the popular lecturer. Perhaps his plea that "all persons over 40 should pay a visit to a doctor at least once a year" is a little Utopian. Equally fantastic may be his prophecy that the public fear of cancer can be assuaged by free discussion and familiarity with the disease without creating a phobia.

The remainder of the book is given up to clinical considerations. By far the greater part (forty-three pages) is devoted to malignant disease of the uterus.

The discussion on cancer of the cervix contains irrelevant anatomical and histological data, whereas the symptomatology is unimpressive and the graphic illustrations are futile. As the author is a propagandist so devoted to securing early recognition of malignant disease of the cervix, it was surely incumbent upon him to present a telling series of illustrations.

Donaldson describes the radiological technique for the treatment of cancer of the cervix adopted by the world-famous clinics at Stockholm, Paris, Brussels, Münich and New York. He himself has given up his original technique with interstitial radium needles in favour of the cavitary methods of Stockholm and Paris. He also approves routine X ray therapy in addition to local radium application in this condition.

In carcinoma of the uterine body, he favours surgical excision after preliminary cavitary radium application followed by post-operative X irradiation.

For benign conditions he favours radium treatment in preference to abdominal hysterectomy for "menorrhagia associated with the menopause" and "menorrhagia associated with fibroids not larger than a fœtal head at term in a person who has reached the age of 40". The claims of X ray treatment for these conditions are overlooked. Moreover, Donaldson, like most British gynæcologists, overlooks the advantage of vaginal hysterectomy and seems to regard "excision" as synonymous with "abdominal hysterectomy".

The relative value of intrauterine radium treatment and hysterectomy are also discussed in connexion with severe functional menorrhagia in young subjects. Donaldson decides in favour of hysterectomy, but fortunately nowadays we have been extricated from this gynæcological dilemma by the efficacy of "Prolan" injections.

A short chapter on the dangers of radium therapy abruptly terminates the book.

The author states that the aim of the book is "to describe shortly and in simple language for the benefit of the busy practitioner and the student the present position of radiotherapy in gynæcology". It may be conceded that he has succeeded.

Although the Australian student and practitioner can obtain all the information in local publications, nevertheless the volume under review is a compact collection of information suitable for such examinations as that prescribed for the Diploma in Gynæcology and Obstetrics in the University of Melbourne.

CORRIGENDUM.

IN the issue of April 14, 1934, a review was published of "Rose and Carless' Manual of Surgery for Students and Practitioners", Fourteenth Edition, edited by C. P. G. Wakeley. The name of the publisher was unfortunately omitted from the footnote of this review. Readers are asked to note that the book is published in London by Messrs. Baillière, Tindall and Cox.

[1] "A System of Clinical Medicine Dealing with the Diagnosis, Prognosis and Treatment of Disease for Students and Practitioners", by T. D. Savill, M.D.; edited by A. Savill and E. C. Warner, M.D.; Ninth Edition; 1933. London: Edward Arnold and Company. Royal 8vo., pp. 1093, with illustrations. Price: 28s. net.

[2] "Radiotherapy in the Diseases of Women", by M. Donaldson, B.A., F.R.C.S., M.B., B.Ch.; 1933. London: Hodder and Stoughton, Limited; Australia: Angus and Robertson, Limited. Demy 8vo., pp. 146, with illustrations. Price: 7s. 6d. net.

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DIET AND THE TEETH.

DENTAL CARIES must always remain a subject of the greatest importance to those engaged in the practice of medicine. Many facts may be stated to prove the truth of this statement. In the past attention has been focused on cleansing of the teeth—on tooth brushes and mouth washes and so on—and there has possibly been a tendency on the part of the medical practitioner to leave the prevention of dental caries, as well as its treatment, to the dental surgeon. In July of last year we published in these pages a special abstract in which the subject of dental caries was reviewed in the light of what was then known of the condition. The several views on ætiology were set out in this article; and amongst the suggested causes was a deficiency of vitamins. This was discussed, together with the chemo-parasitic theory of Miller. The suggestion was made that the incidence of caries in children might be reduced by regulation of the diet, but no definite conclusions were stated. Little doubt as to the cause of dental caries need now exist, however, for in a final report of her work to the Medical Research Council of Great Britain, Mrs. May Mellanby has shown that diet has a most profound influence in making a tooth resistant to its onset.[1] At the same time the importance of oral hygiene must not be under-estimated.

Mrs. Mellanby has been engaged on her researches since 1917 and two reports of her work have been published by the Medical Research Council; Part I was published in 1929 and Part II in 1930. The investigations reported in Parts I and II on work in dogs and other mammals suggested that certain dietetic factors might be concerned directly or indirectly in the susceptibility of teeth to caries. In Part III the work is applied to man. Drawing her criteria chiefly from animal experiments, Mrs. Mellanby describes as perfect a tooth with a smooth, shiny and creamy white surface, and one that shows in section relatively thick enamel with little pigmentation and comparatively little tendency to stain, and one with dentine free from poorly calcified areas. Any tooth not up to this standard she describes as hypoplastic. In regard to the enamel, it is interesting to note that Mrs. Mellanby concludes that enamel probably possesses the power of interchange of chemical material and may therefore be regarded as coming within the pale of nutrition. She then shows that there is a definite relationship between the surface texture of a tooth and its histological structure. From this it follows that it is usually possible, by careful examination of the enamel, to predict the histological structure of both the enamel and dentine, so that a rough diagnosis, not only of the texture of the surface, but also of the minute structure of the tooth, can be made while it is still in the mouth. Over two thousand shed and extracted teeth were examined macroscopically and microscopically, and the teeth of two selected groups of children were examined *in situ*. The conclusion is reached that the majority of the teeth of children in Great Britain are defective in structure. The teeth collected from private sources were found to be better calcified than those from public elementary school children. Of considerable importance is the observation that it is

[1] "Diet and the Teeth: An Experimental Study. Part III. The Effect of Diet on Dental Structure and Disease in Man", by May Mellanby. The Medical Research Council of the Privy Council, Special Report Series, Number 191; 1934. London: His Majesty's Stationery Office. Pp. 180, with 46 special plates. Price: 5s. net.

rare for all parts of a tooth to be imperfect in structure. Defects generally begin to form soon after birth—in the majority of deciduous teeth the part formed before birth is well calcified, however hypoplastic the rest of the tooth may be.

Turning from structure to the main subject of the report, that of caries, Mrs. Mellanby shows that there is a definite and direct association between structure and the incidence of caries. In other words, the better the structure, the less the susceptibility to caries, and *vice versa*. The figures from which these conclusions are drawn cannot be reproduced here, but it must be noted that in a small percentage there was no direct association between structure and caries. The reason for these exceptions was suggested by the animal experiments in the earlier parts of the work; and it was concluded that a change in the resistance of a tooth takes place after eruption and that this change is indicated by the character of the secondary dentine. In the earlier work it was found that the quality and quantity of the secondary dentine could be controlled by varying the food eaten by the animal. Mrs. Mellanby therefore undertook a series of experimental observations in children. The observations were carried out in Sheffield and Birmingham and are stated in detail. The conclusion is that a diet rich in vitamin *D* and containing sufficient calcium and phosphorus inhibits the onset and spread of caries and tends to heal up carious areas. This inhibition is increased by the omission of cereals. To quote the words of the report:

> Perfectly calcified and regularly arranged teeth can be produced by including in the maternal diet during pregnancy and lactation, and in the diet of the offspring at the time of dental development, substances containing much fat-soluble vitamin, calcium, and phosphorus, such as milk, egg-yolk, fish and animal fats; the vitamin *D* can also be obtained by exposure of the skin to sunlight or other sources of ultra-violet radiation; that cereals, especially those rich in embryo such as oatmeal, tend to produce badly developed (hypoplastic) teeth and call for a correspondingly larger supply of calcifying foods for good development.

This short statement of the ground covered by Mrs. Mellanby gives no indication of the enormous amount of work that she has carried out. The work was planned in logical sequence and with an attention to detail that is amazing; it will call forth the admiration and grateful appreciation of workers in every country. Medical practitioners and dental surgeons will be well advised to secure a copy of the report and to study it. The main purport of the findings is that dental health is purchasable. Since there is no doubt that the purchase will be worth while, it behoves medical practitioners to see that their patients know what there is for them to buy. To quote the report again:

> In order to reduce substantially the incidence of dental disease, especially in temperate zones, it is necessary to introduce large changes in the diet and habits of pregnant and lactating women, of infants, and of children during the whole period of dental development and, indeed, during the whole of life. The consumption of milk, eggs, cheese, animal and fish fats, and vegetables must be greatly increased and the consumption of cereals correspondingly diminished, and, for the very young, abolished . . . Cod-liver oil or some other source of fat-soluble vitamins should be given to all infants and children.

The economic side of the question is of importance, and this report might well be placed in the hands of those who have to do with the declaration of a living wage for workers, and of government and other authorities who have control of institutions for the care of children.

Current Comment.

THE TREATMENT OF LEPROSY.

THE treatment of leprosy is notoriously a long process and not very satisfactory. Apart from the fact that patients often remain for many years as inmates of a lazaret, with little or no clinical improvement, the cost to the State of such treatment is considerable. The average cost per head *per annum* of twenty patients in the lazaret at the Coast Hospital, New South Wales, for 1932 was £153 17s. 6d. Recovery, of course, does occur—two patients were discharged from the Coast Hospital in 1932, one was discharged in 1928, two were discharged in 1926, and so on; but the records of the results of treatment are depressing. Great interest therefore centres round a preliminary report by Gordon A. Ryrie, Medical Superintendent of the Federal Leper Settlement, Sungei Buloh, Federated Malay States, on the action of certain dyes in leprosy.[1]

Ryrie gave experimental injections of various dyes to 85 lepers who volunteered to undergo the treatment. The synthetic dyestuffs investigated

[1] *Transactions of the Royal Society of Tropical Medicine and Hygiene*, Volume XXVII, Number 1, June 29, 1933.

included azo compounds, carbonium compounds, xanthines, thiazine and indigoid groups. The patients selected were male adults. They are described as: (i) having clearly defined cutaneous lesions so that exacerbation and regression could be easily detected; (ii) being free from lepra reaction or from any record or history of lepra reaction in the last six months; (iii) being capable, as far as possible, both of understanding the nature of the experiment and of expressing an opinion on it. Careful observations were made during the course of the experimental injections, and these observations included the examination by the snip method and Ziehl-Neelsen stain for *Mycobacterium lepræ* of the centre and edge of a selected cutaneous lesion. It is important to note that certain precautions are essential in the intravenous injection of unknown samples of dyes. Ryrie describes the untoward results that may follow these injections and the measures that he adopted to prevent them. In his series there were no deaths and no permanent ill effects. When trypan blue was injected, the leprous lesions became blue, then became scaly on the surface, softened and diminished in size. Thirty-seven patients were treated by trypan blue; 19% of them became what is described as bacteriologically negative, 31% were either "negative" or had only a few typical or irregularly stained bacilli. In 74% there was a decrease in the number of bacilli in the lesions. The conclusion was formed that the lesion changes were a specific response to the introduction of the dye; in no instance were the lesions aggravated. Brilliant green was used in nine cases; three patients became "bacteriologically negative" and five manifested definite retrogression of lesions. Satisfactory results were also obtained with the use of fluorescein. Ryrie obtained certain results with eosin; these he proposes to discuss in a subsequent communication. He used several other dyes, but the results were unsatisfactory. In discussing the subject Ryrie points out that the essential phagocytozing cell in leprosy is the macrophage and that the macrophage shares with the cytoplasm of other types of cell in the reticulo-endothelial system the power of active selective absorption of soluble dyes or of suspensoids of particulate matter. He goes on to remark that the loading of such cells with dyes produces ultimately reticulo-endothelial blockage, surfeiting the cell, inhibiting its further activity and possibly interfering with antibody formation. At first sight, therefore, reticulo-endothelial blockage of a leprous lesion might appear to be contraindicated. Ryrie gives three reasons for not adopting this view. In the first place he states that the work on the effect of reticulo-endothelial blocking is so discordant in results that a conclusion cannot be drawn. Secondly, the arsenical preparations in spirochætal diseases may act through the medium of concentration in the reticulo-endothelial system. Thirdly, the unaided macrophage has not been proved to have very much effect on the *Mycobacterium lepræ* apart from phagocytosis.

Ryrie's paper is of the greatest interest and his observations may show the way to the ultimate discovery of a satisfactory method of dealing with the bacillus of leprosy. It is only a preliminary report; when he makes his full report it will be time to look for confirmation of his results. In the meantime discussion of his findings should possibly not be undertaken. At the same time speculation may be pardonable. As Ryrie himself reminds his readers, Clark has shown that trypan blue has a selective action on the tubercle bacillus *in vitro* and that the dye, when injected into the body, produces selective staining of tubercle nodules. Clark found that though a number of substances produced strong bactericidal action on tubercle bacilli *in vitro*, none of them inhibited the growth of the tubercle bacillus in the living animal. If it can be shown that certain dyes have a lethal effect on the bacillus of leprosy in man, further research may reveal a dye that acts similarly on the tubercle bacillus, for the two organisms are closely related.

DISSECTING ANEURYSMS.

"A DISSECTING aneurysm is the lesion produced by penetration of the circulating blood into the substance of the wall of a vessel with subsequent extension of the effused blood for a varying distance between its layers. In most cases the aorta is the vessel involved, though dissecting aneurysms can form in the pulmonary artery and in all grades of arteries down to the small perforating arteries of the brain. The sac communicates with the original lumen through a rupture or ruptures of the inner layers of the wall, and though in a few cases it remains as a hæmatoma, it more usually ruptures either to the exterior or back into the lumen. In the latter event the original symptoms may disappear and the patient recover, with an additional endothelium-lined channel through which blood circulates. Exceptionally the sac becomes completely obliterated."

In these words Professor T. Shennan, of Aberdeen, describes dissecting aneurysms in an introduction to a report written by him and published by the Medical Research Council.[1] Shennan analyses 300 dissecting aneurysms from the pathological and clinical points of view; included in this number are seventeen that he has himself encountered. He shows that a common factor in all cases is degeneration of the elements of the media and that this may be diffuse or localized. The diffuse alterations include fatty and atrophic changes in the muscular tissue, frequently with complete disappearance of the fibres in small areas of the wall; hyaline and mucoid degeneration of the connective tissue with occasional deposit of cal-

[1] "Dissecting Aneurysms", by T. Shennan, Medical Research Council of the Privy Council, Special Report Series, Number 193, 1934. London: His Majesty's Stationery Office. Pp. 138, with five special plates. Price: 2s. 6d. net.

careous salts; swelling, varicosity, fragmentation and loss of staining power of the elastic laminæ. In most cases the media gives way before the intima, the immediate or exciting cause being a sudden increase of blood pressure due to physical or mental strains or stresses.

Atheroma has been often regarded as the precursor of dissecting aneurysms. Shennan is strongly opposed to this view. He states that the cases in which atheroma is the chief factor are so rare as to be exceptional. In aneurysm of the aorta syphilis is known to be the common cause; in the ætiology of dissecting aneurysm syphilis does not take a prominent part. Shennan's discussion on the mechanical influence of an actively contracting hypertrophied left ventricle in producing a high systolic pressure and so causing a rupture is most interesting. He points out that the systolic propulsive force is exerted chiefly in a longitudinal direction, parallel to the axis of the lumen, and that it will have greater effect in elongating the vessel if irregularities or roughnesses, such as atheromatous patches, exist on the inner surface. Irregularities of this kind are not so common in the ascending aorta as in the transverse and descending portions of the vessel. On the other hand, primary ruptures in dissecting aneurysm occur much more commonly in the ascending aorta than at its junction with the transverse part or in any part of the extrapericardial aorta. Shennan concludes that some explanation other than a greatly increased systolic blood pressure has to be found. The explanation offered by him is that the abrupt diastolic recoil meeting the resistance of the closed aortic valves is an important factor. He adds that in diastole, on the closure of a valve, the longitudinal force is largely converted into a transversely acting force, with consequent lateral stretching and distension of the intrapericardial part of the aorta. The additional factors are the resistance offered by the distended right pulmonary artery and by the rigid attachment of the pericardium at its reflexion, both of these tending to increase the strain that has to be borne by the wall of the intrapericardial aorta. Shennan's explanation is logical, though, of course, it is difficult of proof.

The main interest of Shennan's report is the pathological aspect; and pathologists would be well advised to read it. The excellently produced illustrations will be helpful to them. There is at the same time much of clinical value in the report. The clinician wants to know whether a dissecting aneurysm can be diagnosed during life. A diagnosis during life is important, particularly as spontaneous cure may occasionally occur. Such a diagnosis has but rarely been made. Shennan gives particulars of six or seven correct *ante mortem* diagnoses. The onset is characteristically sudden and occurs in a person who had previously shown no obvious symptoms of cardio-vascular disease, or who had been in a good state of health. Intense pain occurs in the thorax, in the abdomen or in both. Shennan describes the different types of pain experienced by patients and its variability. He points out that the situation of the pain does not necessarily indicate, even approximately, the position either of the primary tear or of the dissection. Other symptoms discussed are vomiting, dysphagia, collapse, cyanosis, hæmorrhage from the bowel, hæmoptysis, and so on. The main objective symptoms are alterations in pulse and blood pressure; these include changes in strength, transient disappearance of the pulse and suddenly developing heart murmurs. Shennan gives an interesting table in which he analyses nervous symptoms collected from cases reported by various authors. He discusses the length of time that elapses between the acute onset and the death of the patient. This time varies with the type of aneurysm; the limits are a few minutes up to five weeks. The main conclusion is that whether the dissecting aneurysm be limited in extent or sheath-like, whatever the length of the dissection in the latter group, the main factor determining the length of survival of all patients with dissecting aneurysm subsequent to the occurrence of the primary tear is the varying period during which the blood pressure is maintained at the height at which the primary rupture has been produced; and even the grade of degeneration of the media, or media and intima, is not a more important factor.

Admittedly this is a rare condition, but its rarity does not make it unworthy of study by clinicians. No mention has been made of the different views put forward to explain the initial change in the media of the arterial wall. Four theories are advanced; it must suffice to enumerate them. They are: (i) the theory of mechanical injury, by (*a*) external trauma, (*b*) psychical and mental disturbances; (ii) the inflammatory theory; (iii) the degenerative theory; (iv) the presence of certain degenerative changes in the aorta. The main clinical fact to be remembered in this connexion is that syphilis is not commonly an ætiological factor.

RELAPSE IN ULCERATIVE COLITIS.

One of the rather mysterious but familiar features of all forms of ulceration of the alimentary tract is that the chronic varieties have a distinct tendency to relapse. Whether there is some obscure cyclical tendency innate in the pathology of such conditions is not known. In many cases the explanation may be found in the cessation of precautionary measures by the patient himself, but this does not cover all instances of relapse. A study of the causes of relapse in ulcerative colitis has been made by B. M. Banks and J. A. Bargen, utilizing the histories of 364 consecutive patients treated at the Mayo Clinic.[1] Anyone who takes the

[1] *Archives of Internal Medicine*, January, 1934.

trouble to skim through the histories of patients admitted with this disease to a large hospital will find that the most superficial study will reveal a strikingly large percentage of relapses. But here the authors have used the follow-up facilities of the institution and have carefully inquired into all factors that seemed to be of importance in initiating a recrudescence of the disease. Only cases were included in which there was a true relapse of the pathological condition. Thus, short disturbances lasting less than a month were not regarded as serious relapses, and those forms of altered bowel function due to late sequels of the ulceration, such as polyposis or stricture, were also excluded.

It is perhaps at first surprising to find that the commonest cause for relapse seemed to be infections of the upper respiratory tract. Influenza and similar upper respiratory catarrhs were responsible for a return of the colonic symptoms in no less than 57% of the total cases. This group includes tonsillitis and pneumonia, and it is interesting to note that the authors do not incriminate the tonsils, for example, as the prime cause through septic focal infection, but consider that the harm is done by the general lowering of the body resistance. This rational view enables us to include this rather heterogeneous group in one category, though the importance of a persistent focus, for example in a sinus or the tonsils, should be remembered. Where an attempt was made to prevent further attacks of winter catarrhs by the eradication of such a focus, however, recrudescence of the colitis frequently occurred. But whether we regard these respiratory infections as the bacteriological or merely the exciting cause, there seems to be no doubt of their significance.

A considerable number of relapses followed gastro-intestinal irritation, due to various causes, the commonest being dietary indiscretions (as might be expected), epidemic diarrhœa, and the trauma of different rectal procedures. One very significant thing has been found in this investigation. The routine treatment of all patients suffering from ulcerative colitis at the Mayo Clinic includes some form of immunization against the diplococcus with which the name of Bargen is associated. The after-treatment often is augmented by courses of injection of vaccines prepared from this organism, and in a few cases the disease was freshened up by a dose that was apparently too large for the individual patient, and thus excited a negative phase. The passive form of immunization employed while the patients are actually in hospital did not excite any such reaction. Whether the Bargen diplococcus is of ætiological importance as a primary or secondary factor may be a matter for argument, but in this observation there is a plain warning for all who use vaccines. Those who are not aware of the practical risk of undue sensitization, or perhaps, putting it less controversially, of undue disturbance of the defence mechanism, should take heed.

As regards the influence of age in recurrence, this was of but slight importance, though the younger patients seemed to be rather more prone to slip back. Reference is also made to the question of emotional and physical strains, for it is well recognized that these have a particular importance in the alimentary diseases, perhaps in particular those of the ulcerative type. These factors are not always easily controlled, but as the authors point out, the patients often gain a keen insight into their own disease, and with cooperation thus gained it may be possible to educate the patient upon correct lines. The need for such an effort to be made is shown by the fact that 13% of the patients gave a history of exposure to undue strain of either the physical or mental type in direct relation to a return of the bowel symptoms.

It would be interesting if a similar inquiry could be carried out in this country, for ulcerative colitis is not at all uncommon and is a source of considerable invalidity. Such a research might show, for instance, whether relapses were more common in the summer months, or, as found at the Mayo Clinic, in the winter months, and whether the respiratory infections were as dangerous in this connexion here as there. Such causes as dietetic rashness will be obvious, but not too obvious to preclude the necessity of a solemn warning to the patient, for it is chiefly with the apparently obvious that we deal every day. Perhaps when the common diseases yield up their secrets we shall be in a better position, for even though we know that the common "cold" may predispose to a relapse of so serious a malady as ulcerative colitis, we still cannot say that we know how to prevent it.

THE SOCIAL PROBLEM AND HEREDITY.

In another place in this issue is published a review of a book by E. J. Lidbetter, entitled "Heredity and the Social Problem Group". This book is of such importance and represents the result of such extensive and devoted research that we would direct to it the attention of all those interested in the subject. As Major Darwin points out in his introduction to the book, to come to sound conclusions on this subject it is necessary to discover a method of measuring the effects of heredity and environment. Until this is possible too strenuous adherence to belief in one or the other will characterize the efforts of many who try to solve the problem. It is perhaps as well that Mr. Lidbetter, the author of the book, has not stated his general conclusions in this volume. Those who pay too much attention to environment cannot fail to see the meaning of the evidence produced by Mr. Lidbetter. Should heredity prove to be largely or almost wholly responsible for the unfortunate lot of the lower strata of society, there would still be room for workers who sought to change to a comely environment the sordid surroundings of the hapless people with whom Mr. Lidbetter deals.

Abstracts from Current Medical Literature.

GYNÆCOLOGY.

The Radium Treatment of Non-Malignant Uterine Hæmorrhage.

Phyllis Epps (*The Journal of Obstetrics and Gynæcology of the British Empire*, August, 1933) reviews the recent literature on the radium treatment of excessive uterine hæmorrhage. She has taken nearly 3,000 cases into consideration in compiling her statistics. The general technique adopted was to place from 40 to 50 milligrammes of radium element, screened by 1·0 millimetre of platinum and 1·5 millimetres of rubber, in the uterus for a time which gave a dosage varying from 800 to 2,500 milligramme-hours. Radium was used either for uterine hæmorrhage at the climacteric, during the child-bearing age or at adolescence. Radium has been shown to be a useful method of treatment for excessive uterine hæmorrhage at all of these periods. An essential preliminary is a thorough bimanual examination of the pelvis to exclude other complications. Radium is practically a specific for the treatment of hæmorrhage at or about the menopause which is uncomplicated by other conditions. In younger women smaller doses, from 300 milligramme-hours at adolescence to 700 milligramme-hours during the child-bearing period, are recommended for uterine hæmorrhage which is not due to tumour or other pathological condition. Stenosis of the cervix and other parts of the vagina should not occur if the technique is properly carried out. It takes at least six months to determine whether the treatment has been efficacious. The author does not deal with the treatment of fibroid tumours by radium.

Dysfunctional Uterine Bleeding.

George van S. Smith and John Rock (*Surgery, Gynecology and Obstetrics*, July, 1933) have investigated the result of treatment of dysfunctional uterine bleeding with extracts of the urine of pregnant women. They point out that the measures in common use for the treatment of dysfunctional uterine bleeding are usually rest, high calcium diet, injections of calcium or hæmostatic serum, administration of preparations of ergot or *corpus luteum*, curettage, exposure to X rays or the local application of radium. Recently they have tried the effect in a series of cases of administering "Antuitrin S.", which is extracted from the urine of pregnant women. It was administered to 56 patients with dysfunctional uterine bleeding with the result that 28 were cured, 22 were benefited, and 6 were unrelieved. The authors consider that the cessation of bleeding which accompanied treatment so often and in many cases so rapidly, leaves little doubt of the specificity of the hormone which is present in the urine of pregnant women. The mechanism of this hormone's therapeutic action, they consider, is the possibility of a direct action on a hypophyseal hormone.

Prolapsus Uteri.

William Fletcher Shaw (*American Journal of Obstetrics and Gynecology*, November, 1933) writes on the treatment of prolapse, with special reference to the Manchester operation of colporrhaphy. He gives a detailed description of the Manchester operation as practised by himself. The paper is illustrated with numerous diagrams. The author concludes that a combination of anterior and posterior colporrhaphy with amputation of the cervix is the best method of treatment for all cases of *prolapsus uteri*. He recommends it for all patients, whether young or old. In his own series of 549 cases he finds that 529 patients were cured. The operation is not a cause of trouble in subsequent labours. The prolapse may recur after subsequent labours, but in less than 25% of cases. He considers that it is only very rarely necessary to combine an abdominal operation with the repair.

J. Frei (*Monatsschrift für Geburtshülfe und Gynäkologie*, January, 1934) discusses the results obtained with the Schauta-Wertheim interposition operation for cases of prolapse. His series comprises 242 cases with no maternal mortality. The choice of the right case is very important, and the author recommends the operation for all cases of moderate prolapse, especially if cystocele be pronounced. It is not suitable for total prolapse. The age of the patient is also important, and if the operation is performed before the menopause it must be accompanied by tubal sterilization. If the cervix be hypertrophied, amputation should be done before the uterus is dealt with. In seventeen cases supravaginal hysterectomy was performed and the stump interposed. In one case a pregnancy occurred later, requiring an anterior hysterotomy. Sixty-five patients have been followed up for a period of five years and in only two instances was there any sagging of the anterior vaginal wall. The author considers that if the original technique be carefully observed this operation is ideal for the cure of prolapse in women at or near the menopause.

Plant Growth Substances in Menstrual Blood.

H. Fleckner (*Monatsschrift für Geburtshülfe und Gynäkologie*, January, 1934) discusses the folk lore of the effect of menstrual blood on plants, and mentions the fact that flowers are apt to wither if handled by a menstruating woman. On the other hand, some gardeners have claimed better growth of flowers if the plants be watered with a solution obtained from washing menstrual cloths. The old idea that the menstrual blood contained a toxin which was excreted in the sweat he shows to be wrong. From experiments with fast-growing plants in glass jars with suitable natural and artificial soils he was able to show the retarding influence on growth of menstrual blood. This was not due to any special menstrual toxin, but to those from bacterial growths on the roots. These bacteria were those from the vagina and vulva contaminating the menstrual blood. When the plants were placed in pots with earth watered with solutions of menstrual blood a marked growth occurred, in contradistinction to what was observed *in vitro*. The stimulating factor was the manure effect of old blood.

Removal of Foreign Bodies from the Female Bladder.

F. d'Erchia (*Monatsschrift für Geburtshülfe und Gynäkologie*, January, 1934) describes three cases in which foreign bodies had been inserted into the bladder during masturbation. In two instances hair pins were employed, while a thermometer was used in the other case. The hair pin was embedded in the vesical wall in one case, causing symptoms of pelvic parametritis. In all cases cystitis was present. The author discusses the methods of removal *per urethram* and then proceeds to the mode of attack when this route is impracticable—colpocystotomy. In all of these cases the bladder was opened from the vagina. After reflecting the mucosa from the cervix a sound was inserted into the bladder and cut down upon. The foreign bodies were then removed with forceps, assisted with a finger, and the bladder wall was closed. A retention catheter was employed for several days. Two of the patients made an uninterrupted recovery, while a fistula developed in the third. This was repaired at once with success.

Failures in Tubal Sterilization.

W. H. Rubovits and A. J. Kobak (*American Journal of Obstetrics and Gynecology*, January, 1934) commence their article with the statement that a reliable technique for tubal sterilization has been an objective for years; many methods have been tried, but none has been able to stand the test of time. The late John Osborne Polak, in his last review of the gynæcological literature, stated that pregnancy has occurred after all methods of tubal sterilization. One of the authors used the Mandler technique in 75 patients. This method is to raise a knuckle of the tube at its midportion and with the tube at an obtuse angle to crush a broad area to paper thinness and then to ligature the furrow. Two failures as the result of this technique came under

the authors' own observation; in addition, there were also two functional failures in this series, where lipiodol passed the site of crushing; however, the fimbriated ends had become sealed and so prevented a complete failure. In the authors' opinion the only way of determining the permanency of the sterilization is by injecting lipiodol into the uterus some time after the operation.

OBSTETRICS.

Spontaneous Version at Term.

K. Lange (*Monatsschrift für Geburtshülfe und Gynäkologie*, May, 1933) discusses the possibility and frequency of changes in position of the fœtus at the end of pregnancy. He recalls that in many instances the fœtal head is not fixed at the onset of labour in *primiparæ* and he maintains that conversion from a vertex to a breech presentation is not uncommon. The factors controlling this spontaneous version are apparently the state of tone of the uterine muscle as well as that of the abdominal wall, the amount of *liquor amnii* and the movements of both mother and child. The increased use of X rays in diagnosis has confirmed the relative frequency of such changes. He gives the details of six cases.

Investigation into the Source of Infection in Puerperal Fever.

J. Smith (*The Journal of Obstetrics and Gynæcology of the British Empire*, October, 1933) gives further results of his work carried out at the City Hospital Laboratory, Aberdeen. Sixty cases of puerperal fever were fully investigated. Complete series of specimens from the patient, uterine secretion, blood, fæces, urine, throat and nose swab were obtained, all for culture, and throat and nose swabs were obtained from all immediate contacts. An agglutinating serum was prepared from the infecting strain and agglutinin absorption tests were carried out on all other strains from case and contacts. In the great majority of cases it was possible to demonstrate the source of the infection. In some instances it was the patient's own nose and throat, but in a greater proportion of cases it was shown that the infecting organism was serologically identical with those of the throat or nose of the attendant. In one instance a nurse was associated with three cases of puerperal fever, with an interval of four months between two cases. The nurse, who was a particularly skilful sister, was anxious to have the matter cleared up, and on investigation it was found that she had a marked infection of the right antrum and ethmoidal sinuses. The organisms were serologically identical in each of the three cases with that found in her antrum. The author believes that infection is not necessarily a spray infection direct on to the vulva, but is carried by the hands of the attendant, which have become infected either by nasal secretion or spray. In the present series under review eight patients had uterine infection due to *Bacillus coli* and three had a septicæmia due to the same organism. By laboratory test it was possible to show that the uterine strains in two cases were identical with the urinary strains. In two cases the strains were identical with a particular fæcal strain; and in the remaining case the serological counterparts were found in both urine and fæces. The author points out that the majority of streptococcal infections are due to an extrinsic cause; in a small proportion it is intrinsic, the patient herself being the carrier.

Thyreotoxicosis in Relation to Pregnancy.

J. T. Wallace (*American Journal of Obstetrics and Gynecology*, July, 1933) reviews the available literature on thyreotoxicosis in relation to pregnancy and considers that the condition is a rare one. When the symptoms of thyreotoxicosis are present during pregnancy two factors are of importance: the severity and the period of gestation. Pregnancy may act in one of three ways: it may effect an improvement, it may have no effect, and it may cause a definite increase in the thyreotoxic symptoms. Further, a long and difficult labour may impose upon organs already damaged by a long continued thyreoid toxæmia a strain greater than they are able to bear. As regards treatment, it seems to be the consensus of opinion that all patients manifesting symptoms of thyreotoxicosis, except those with adenoma, may safely be given iodine during gestation without fear of making these symptoms worse; and this may enable a patient to go through a pregnancy with an operation. Two authors differ in this and state that iodine should not be used except as a preparation for operation. Induction is not favoured by most writers; if the symptoms are mild, they remain so; if they are becoming worse, the danger of producing a thyreoid crisis by abortion or possible subsequent infection outweighs any clinical gain, and the condition *per se* will have to be dealt with sooner or later by operation. Subtotal thyreoidectomy was carried out in this class of case and the results were the same as if the patients were not pregnant. The author advises that the method of delivery should be such as to throw as little strain as possible on the heart.

Antisepsis in Midwifery.

L. Colebrook and W. R. Maxted (*The Journal of Obstetrics and Gynæcology of the British Empire*, October, 1933) examined the various antiseptics used in midwifery. *Streptococcus pyogenes* was the organism against which the disinfectants were tried. It was found that this organism is not normally present on the skin; and when the skin is artificially infected, as by pus or nasal secretion, it tends to disappear in about eighteen hours. All the experiments were carried out by infecting the skin of a finger and keeping the other fingers as a control. The effect of washing the hands with soap was tried and it was found that although the number of organisms was reduced, they were not completely eradicated. As regards the type of soap, the plain yellow was more effective than the fancy varieties; antiseptic soaps had slightly more effect. The next experiment was to determine the effect of combined washing of the hands and their immersion in an antiseptic solution. In spite of washing the hands for three minutes and soaking them in perchloride of mercury or lysol for a similar period, they were unable to render the hands sterile, whilst soaking them in antiseptic alone was less efficacious. Iodine, 1 in 100 watery solution, was, however, extremely efficient, and so also was a halogen derivative called "Dettol". The authors point out that a nurse may blow her nose and contaminate her fingers, and in spite of washing the organism is not removed. It is claimed that the use of "Dettol" or watery iodine solution practically overcomes this risk. In experimenting with rubber gloves it was found that smooth gloves could be easily disinfected whilst on the hands by disinfectants of adequate strength; rough gloves required more thorough treatment. An investigation in a small number of cases to render the vagina sterile by various antiseptics only resulted in the introduction of fresh organisms.

The Alleviation of Pain in Spontaneous Labour.

Louise McIlroy and H. E. Rodney (*The Journal of Obstetrics and Gynæcology of the British Empire*, December, 1933) record an attempt to alleviate the pains of labour. The drugs used were potassium bromide 2·0 grammes (30 grains) and chloral hydrate 2·0 grammes in a mixture. This was used in the first stage. To prevent vomiting it was given in 180 cubic centimetres (six ounces) of water. This was followed in the second stage with nitrous oxide and oxygen and chloroform added in some cases. Morphine or some preparation containing the alkaloids of opium was used, either alone or in conjunction with the bromide and chloral hydrate mixture. Morphine is, in the authors' opinion, still the most valuable sedative and analgesic drug during labour. This is administered when the cervix is dilated to three fingers. Magnesium sulphate was used in 50% solution to prolong the action of the morphine. It is claimed that there was no deleterious effect by morphine on the infant, even when the drug was administered as late as one hour before delivery.

Special Articles on Treatment.

(Contributed by request.)

XXX.

THE TREATMENT OF ACUTE ENTERITIS IN INFANTS.

Acute enteritis in infants may be described as a disease characterized by diarrhœa and, as a rule, vomiting and pyrexia. It may occur (i) as a sequel to the ingestion of unsuitable food, (ii) as an acute intestinal infection, (iii) in association with a parenteral infection, such as *otitis media et cetera*.

We may consider that unsuitable food acts as an irritant causing trauma, either mechanical, chemical or metabolic. This paves the way for the entrance of pathogenic bacteria. Parenteral infection may be a cause or a sequel to the development of intestinal symptoms; therefore it is obvious that in a given case of enteritis one or more of the above causes may be operative.

The bacteriology of the condition has been extensively studied and a number of organisms have been isolated. A few important facts have emerged and may be found of practical value.

The dysenteries due to the bacillus of Flexner, and very occasionally to that of Shiga (in this part of the world) are characterized by blood and mucus in the stools, owing to the fact that the colon is the chief site of trouble.

In many cases no specific organism can be isolated, though *Bacillus coli communis* is sometimes found in profusion in the small intestine, much higher up than usual.

Putrefactive organisms seem to predominate in certain epidemics, and in these cow's milk is badly tolerated; in other cases fermentative organisms dominate the picture, and in these the administration of non-fermentable sugars and milk is indicated.

The symptoms, as stated, are diarrhœa and, as a rule, vomiting and pyrexia. The clinical picture will vary according to which of these predominates and to the severity of the attack. In severe cases there will be toxæmia and pyrexia, diarrhœa, and sometimes excessive vomiting, leading to a condition of dehydration, acidosis or alkalosis and extreme collapse. Added to this picture there may be such complications as *otitis media*, mastoiditis, pyelitis and pneumonia. The skin of the buttocks becomes damaged in varying degrees from superficial scalding to deep ulceration.

Preventive Measures.

Before discussing the treatment of an actual attack, it is necessary to consider various preventive measures. These comprise the giving of a properly balanced diet containing all the elements required, in adequate quantity, in a digestible form and suited to the needs of the particular infant. Mother's milk is the most suitable food during the early months of life. It is important to see that the nutrition of the child is maintained, as under-nourished infants are particularly prone to infections. Food which is likely to act as an irritant should be avoided. Cleanliness in the handling of food is all-important. Milk should be boiled, stored in a cool place, protected from flies and dust. Danger lies in the presence of flies and the proximity of other cases. Overheating of the child is to be guarded against, and an abundance of boiled water should be given in hot weather.

Treatment of the Attack.

The treatment of the attack resolves itself into that of: (i) mild enteritis, (ii) severe enteritis, (iii) dysentery.

The mild attack may occur in the breast-fed infant. In these cases it is not usually severe. An initial dose of castor oil may be useful and should be followed by a period of some twelve to twenty-four hours of starvation, during which water is given freely. The breasts must be emptied regularly in order to maintain the supply of milk. As the child's condition improves, breast feeding is gradually resumed by giving small quantities at four-hourly intervals until the full quantity is again taken at the regular times.

During this period of starvation water and barley water are given freely. Search should be made for any existing parenteral infection and suitable treatment instituted.

Starvation diarrhœa occurring in an under-nourished breast-fed infant must not be mistaken for acute enteritis. The history is characteristic. A twenty-four hour series of test feeds will reveal the low intake, and the remedy is complementary feeding, not alimentary rest.

A mild attack occurring in the artificially fed infant should be treated on the same general principles, but if the previous feeding has been unsuitable and the child's nutrition is poor, there is likely to be more difficulty in dealing with the condition. The period of starvation in ill-nourished children should not be prolonged unduly. Small quantities of malted or pancreatized milk or skimmed lactic acid milk may be given at four-hourly intervals and the effect observed. If there is much vomiting, fluid may have to be given by some of the various methods to be described later.

The management of the child's feeding after an attack should be governed by the usual principles; the amount of fermentable carbohydrate, however, should be very gradually increased to normal. The less fermentable sugars, as contained in malted food, corn cob syrup *et cetera*, are preferable to cane sugar.

The severe attack is treated by alimentary rest, which may have to be prolonged for days, but the dehydration, toxæmia, pyrexia and collapse demand urgent measures. The fluid and mineral loss must be restored and maintained, and as it is impossible to administer sufficient fluid by the mouth, other routes, for example, subcutaneous, intraperitoneal, and intravenous, must be chosen.

The fluids to be given by mouth are boiled water or barley water. If necessary, half strength Ringer's solution may be tried for twelve hours or so in order to induce thirst. If Ringer's solution is not obtainable, half strength normal saline solution may be substituted. Hartmann's buffered lactic acid solution, advocated by Marriott, is useful. This solution has a bactericidal action and can be combined with glucose 5% so that it has a certain nutritive value. In our experience it is not willingly taken.

If the subcutaneous route is chosen, normal saline solution is generally used, care being taken with regard to the amount given at one site. It is important that the solution should be warm and run in slowly and that tension in the tissues should be avoided, as this may lead to sloughing.

The intraperitoneal route has been found of great value when there is no abdominal distension or peritoneal infection; 300 cubic centimetres or more may be given once or twice a day, saline solution being that most frequently used. A very large amount of fluid can thus be absorbed by a dehydrated child, and is given more easily and with less pain by this route.

Glucose 10% in saline or Ringer's solution is popular for intravenous transfusion. The solution should not be stored in liquid form. It should be made from powdered glucose, kept in a sterile ampoule, and dissolved in sterile saline solution when required.

It is good practice to give the child a transfusion with whole citrated blood from a suitable donor some hours after the initial glucose transfusion. The amount of blood given should be about half an ounce per pound of body weight, and may be repeated at intervals of a day or more. The effect of this measure is to revive the failing powers of the child, often in a dramatic manner.

At the recent Pædiatric Congress held in London, Karelitz and Schick declared continuous intravenous transfusion of 5% glucose and saline solution to be one of the most important life-saving measures yet introduced. It may be continued for days, until the symptoms of dehydration and toxæmia are greatly ameliorated. This obviates for twelve hours or longer the need for oral administration of fluids. An account of the technique is

given in the *American Journal of Diseases of Children*, Volume XLII, October, 1931, at page 781.

The amount of fluid given is governed by the general appearance of the child. Normally the infant requires in twenty-four hours some three ounces of fluid for every pound of body weight; in conditions of dehydration greatly increased quantities are necessary. In some cases quarts rather than pints of fluid must be given in the day, the gauge as to the amount required being the disappearance of the signs indicative of fluid loss.

If vomiting is a prominent symptom, an initial gastric lavage may be of value, and the oral administration of fluid should be in small quantities and at frequent intervals.

Alkalosis may occur if there is much vomiting, and is met by the intravenous administration of chlorides (saline or Ringer's solution).

Acidosis occurring in the severe diarrhœas demands the administration of sodium bicarbonate, and if the oral intake is insufficient some other route may be used.

In the rare cases in which mineral loss is not combated by these methods, the use of Hartmann's combined solution, as advised by Marriott, may be efficacious.

Contrary to expectation, glucose (5%) solution given by the mouth is well tolerated in most cases without increasing the diarrhœa. As regards drug treatment, opium may be used if the diarrhœa is severe and abdominal distension is absent. *Tinctura opii camphorata* (paregoric) is a useful preparation. Bismuth appears to be of very little value in the treatment of these conditions.

Intestinal antiseptics have little part to play in acute enteritis, though isolated cases appear to respond to preparations of this nature; but there can be no certainty as to their value in a given case.

As the severity of the attack subsides, the temperature falls, the elasticity of the skin returns and its colour improves, the number of stools may decrease (but this is not of necessity at first); and feeding must begin. Malted milk in some form, skimmed lactic acid milk, or protein milk may be cautiously introduced. Butter milk is commonly used on the Continent at this stage, and in chemical composition it closely resembles skimmed lactic acid milk. The amount of sugar should be low at first, and of a non-fermentable type, maltose and dextrin in a mixture, the latter predominating. Protein milk, with its high casein, low fat and sugar content, is, when tolerated, a very useful preparation, as it produces an alkaline stool, decreasing fermentation. Glucose also may be used, the fact of its rapid absorption into the blood preventing its fermentation in the bowel.

In any case small quantities of the chosen food are given at four-hourly intervals, one or two ounces only at first, the fluid balance being maintained as before. Very gradually the amounts are increased until an adequate diet is taken, when further additions containing necessary vitamins *et cetera* can be made. Protein milk should be given only for short periods.

Specially prepared flour which has been boiled and baked for some hours and thus dextrinized is very useful in these cases. It occupies a place between the sugars on the one hand and the starches on the other, and because of its dextrin content is well tolerated, but is best used in the later stages of recovery.

In dysentery the stress falls chiefly on the lower bowel, which becomes ulcerated. There is blood and mucus in the stools. In these cases an initial purge is not given, though regular doses of sodium sulphate have proved useful in some cases. Serum treatment, theoretically valuable, has been disappointing.

Feeding is very important, as resistance to the infection is largely dependent on general nutrition, and yet digestion is definitely impaired. The need for fluid must be dealt with as in the other conditions—if dehydration cannot be prevented by oral administration of fluid some other route must be used as well.

Food should be easily digestible and should not have a high fat content. In the early stages some form of malted milk is of value, or lactic acid milk or pancreatized milk (as in Benger's food) may suit a given patient.

Beginning with the more dilute mixtures, as improvement occurs more concentrated feeding becomes possible, and in some convalescent dysentery cases butter-flour mixture has proved of great value, in spite of its high fat and carbohydrate content. As a rule the feeding with butter-flour mixture is continued for some weeks and then replaced with milk and baked flour, the milk being given in amounts suitable to the age and growth of the child, the baked flour supplementing the sugar used.

In a long-drawn-out case of dysentery vitamin *C* must be given in the form of strained orange juice. Vegetables and fruits should be withheld for some time until the bowel has had time to recover. After severe enteritis a hypersensitivity to roughage may persist for years, entailing careful selection and preparation of the cereal, fruit and vegetable portion of the diet.

It will be noticed that the treatment of enteritis consists in attacking the cause, preventing irritation of the bowel, while replacing mineral and fluid loss, initiating feeding in such a way as to minimize intestinal disturbance, and subsequently following up recovery by instituting preventive measures.

The symptom diarrhœa is attacked indirectly. Bowel wash-outs are seldom of value and sometimes harmful. Occasionally in persistent dysentery a silver nitrate wash-out (1 in 5,000) has a good effect, but as a routine treatment it is spoken of only to be condemned.

Complications.

The complications which have to be dealt with include soreness of the buttocks. The best treatment is the prevention, as far as may be, of serious damage by the immediate removal of irritating discharges. The legs are sometimes suspended to a cradle and an electric light is allowed to play upon the skin of the buttocks in order to keep them dry. Various applications may be used, such as *liquor plumbi subacetatis*, zinc cream—zinc oxide, starch and castor oil made into a paste.

Otitis media should always be looked for and a paracentesis performed if the drum is bulging. Afterwards regular dressing and thorough drying out of the canal are important, and drops such as 3% boracic acid in absolute alcohol, "Neosilvol" or "Argyrol" 10% may be used. It is important that the ear drums should be regularly examined until the inflammation has subsided.

Pyelitis should always be looked for, the urine being frequently examined for the presence of pus cells. The treatment by alkalinization of the urine is sometimes difficult, as the administration of the citrates may increase the diarrhœa. If this is the case, sodium bicarbonate may be better tolerated. Hexamine and ammonium chloride may be used as an alternative.

Pneumonia arising as a complication of acute enteritis is always serious and is apt to be a terminal event. It should be guarded against by careful nursing and frequent changing of the position of the child.

Nursing.

A very essential part of the treatment of these cases, as in all serious disease, is the nursing. A good nurse, used to the management of babies, is of the utmost importance. She will attend to the general hygiene, care for the skin surfaces particularly, avoid unnecessary handling which may precipitate vomiting attacks. She will observe the child carefully, noting any idiosyncrasies, and by quiet domination will induce him to take food. She will arrange for periods of rest and will maintain an atmosphere of serenity and discipline in the sick room. The child is very susceptible to environment, and the bad effect of nervous agitation on the part of the mother is apparent only too often. If a good nurse is not available, these patients are best nursed in a well equipped infants' hospital.

Helen M. Mayo, M.D.,

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British Medical Association News.

ANNUAL MEETING.

THE ANNUAL MEETING OF THE NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION was held at the Robert H. Todd Assembly Hall, British Medical Association House, 135, Macquarie Street, Sydney, on March 22, 1934, DR. A. W. HOLMES À COURT, the President, in the chair.

ANNUAL REPORT OF COUNCIL.

On the motion of Dr. George Bell, the annual report of the Council was received. The report is as follows.

THE Council presents the following report on the work of the Branch for the year ended March 22, 1934.

Membership.

The membership of the Branch is now 1,599, as against 1,583 at the date of the last report. The additions have included 87 elections, re-elections, resumptions; 28 removals into the area of the Branch; while the losses have included 6 by resignation; 26 removals out of the area of the Branch; 55 by default in payment of subscription, and 12 by death. The losses by death were as follows: Dr. T. L. Pawlett, Dr. T. E. George, Dr. E. Caspersonn, Dr. A. E. Newbury-Browne, Dr. W. M. Meeke, Dr. W. A. Edwards, Dr. W. McMurray, Dr. F. W. Hall, Dr. Ernest Woodward, Dr. C. H. Norton, Dr. A. G. Cooley, Dr. H. S. Capper.

Meetings.

Ten ordinary meetings of the Branch (including the Annual General Meeting) and eight clinical meetings were held. The average attendance was 57. Eight of the ordinary meetings, as follows, were held in conjunction with meetings of Sections, namely: April 27, with the Section of Oto-Rhino-Laryngology, the Section of Pædiatrics and the Section of Medicine; May 25, with the Section of Radiology and the Section of Medicine; June 29, with the Section of Surgery; July 27, with the Section of Medicine and the Section of Pathology and Bacteriology; August 31, with the Section of Neurology and Psychiatry and the Section of Pædiatrics; September 28, with the Section of Obstetrics and Gynæcology and the Section of Surgery; October 26, with the Section of Medicine and the Section of Pathology and Bacteriology; November 30, with the Section of Surgery and the Section of Pædiatrics. The clinical meetings were held at Broughton Hall Psychiatric Clinic, the Royal Prince Alfred Hospital, the Royal North Shore Hospital of Sydney, the Royal Hospital for Women, the Royal Alexandria Hospital for Children, St. Vincent's Hospital, Sydney Hospital, and the School of Public Health and Tropical Medicine of the University of Sydney. The business of the meetings included thirteen papers and addresses, numerous reports of cases, exhibits and demonstrations. The ordinary meeting of December 8 was devoted to a debate on the subject: "That the application of modern methods of investigation, *e.g.*, pathological and radiological tests, has caused a deterioration in clinical acumen." The motion was lost. One extraordinary general meeting was held, when an addition to the Bylaws governing advertisement was made in respect of broadcasting by wireless. At this meeting the Hospital Policy of the Association was formulated.

Representatives.

The Branch was represented as follows:

(*a*) *Council of the British Medical Association* (1933-1934): Professor R. J. A. Berry.
(*b*) *Representative Body* (1933-1934): Dr. A. B. Keith Watkins.
(*c*) *Federal Council of the British Medical Association in Australia* (1934): Dr. J. A. Dick, C.M.G., and Dr. George Bell, O.B.E.
(*d*) *Australasian Medical Publishing Company, Limited*: Dr. George Armstrong, Dr. T. W. Lipscomb, Dr. F. P. Sandes.
(*e*) *Council of the Bush Nursing Association* (1933-1934): Dr. A. W. Holmes à Court.
(*f*) *Council of the Royal Society for the Welfare of Mothers and Babies*: Dr. R. B. Wade and Dr. A. J. Gibson.
(*g*) *Board of Control of the Campaign Against Tuberculosis*: Dr. S. A. Smith.
(*h*) *Executive Committee of the Council for Mental Hygiene for New South Wales*: Dr. C. K. Parkinson and Dr. E. H. M. Stephen.
(*i*) *Australian Committee, Third International Pædiatric Congress* (1933): Dr. R. B. Wade and Dr. E. H. M. Stephen.
(*j*) *Executive Committee, British Medical Association Annual* (1935) *Meeting, Melbourne*: Dr. T. W. Lipscomb and Dr. A. A. Palmer.
(*k*) *Conference on Marketing of Poultry (Table Birds)*: Dr. W. C. Petherbridge.
(*l*) *Metropolitan Hospitals Contribution Fund of New South Wales*: Dr. R. V. Graham.
(*m*) *Board of Social Study and Training*: Dr. W. Vickers.

Council.

(*a*) The attendance of members of the Council and of the Standing Committees was as set out in the accompanying table.

(*b*) The representatives of the Local Associations of Members, appointed on the invitation of the Council to attend the regular quarterly meetings of the Council, were as follows: Dr. T. E. Parker (Canterbury-Bankstown), Dr. A. M. Gledden (City), Dr. J. M. Alcorn (Central Southern), Dr. A. R. Hunt (Central Western), Dr. W. T. J. Harris (Eastern Suburbs), Dr. A. C. Thomas (Illawarra Suburbs), Dr. L. Cowlishaw (Kuring-gai District), Dr. A. G. Brydon (Northern District), Dr. L. Fetherston (South Eastern), Dr. Ossian Robertson (Warringah District), Dr. Brooke Moore (Western), Dr. T. Y. Nelson (Western Suburbs).

Library.

Dr. J. A. Dick continued to hold the position of Honorary Librarian. Donations of books and periodicals were received from the Australasian Medical Publishing Company Limited, the Royal Prince Alfred Hospital Medical Officers' Association, the Cancer Research Committee, Dr. A. T. Nisbet, Dr. E. H. Freidman, Dr. R. C. Winn, Dr. M. P. Susman, Dr. R. Worrall, Dr. R. J. Silverton and Miss D. Mackellar (from the library of the late Sir Charles Mackellar). A valuable gift was received from the Parent Association consisting of six books from the "Hastings Collection", part of the library of the Worcestershire Medical Society. This library contained many volumes presented by the late Sir Charles Hastings, the founder of the British Medical Association.

Affiliated Local Associations of Members.

Balmain District (affiliated 1913): *Honorary Secretary*, Dr. F. R. Coyne. Membership, 14. Two meetings were held.

Border (affiliated 1908): *Honorary Secretary*, Dr. R. Affleck Robertson. Membership, 12.

Canterbury-Bankstown (affiliated 1930): *Chairman*, Dr. T. E. Parker; *Honorary Secretary*, Dr. G. J. Cousins. Membership, 26. Six meetings were held.

Central Northern (affiliated 1910): *Chairman*, Dr. J. W. Smith; *Honorary Secretary*, Dr. A. C. Arnold. Membership, 75. Ten meetings were held.

Central Southern (affiliated 1909): *Honorary Secretary*, Dr. S. P. Lyttle. Membership, 30.

Central Western (affiliated 1910): *Chairman*, Dr. G. N. M. Aitkens; *Honorary Secretary*, Dr. K. S. M. Brown. Membership, 46. Two meetings were held.

City (affiliated 1913): *Chairman*, Dr. H. A. Ridler; *Honorary Secretary*, Dr. L. R. Flynn. Membership, 21. One meeting was held.

Eastern District (affiliated 1913).

Eastern Suburbs (affiliated 1911): *Chairman*, Dr. R. C. Traill; *Vice-Chairman*, Dr. E. P. Barbour; *Honorary Secretary*, Dr. B. W. Stevenson. Membership, 91. Six meetings were held.

Illawarra Suburbs (affiliated 1913): *Chairman*, Dr. A. L. Watson; *Honorary Secretary*, Dr. P. L. Charlton. Membership, 39. Five meetings were held.

Kuring-gai District (affiliated 1929): *Chairman*, Dr. L. Cowlishaw; *Honorary Secretary*, Dr. F. A. E. Lawes. Membership, 40. Four meetings were held.

North-Eastern (affiliated 1913): *Chairman*, Dr. E. P. Holland; *Honorary Secretary*, Dr. J. R. Ryan. Membership, 40. Four meetings were held.

Northern District (affiliated 1911): *Chairman*, Dr. H. G. Armstrong; *Honorary Secretary*, Dr. A. G. Brydon. Membership, 58.

South-Eastern (affiliated 1914): *Honorary Secretary*, Dr. L. Fetherston. Membership, 13.

South Sydney (affiliated 1909): *Chairman*, Dr. E. H. Loxton; *Honorary Secretary*, Dr. P. J. Markell. Membership, 27. Four meetings were held.

Southern District (affiliated 1909): *Honorary Secretary*, Dr. C. R. Sim. Membership, 68. Two meetings were held.

Warringah District (affiliated 1929): *Chairman*, Dr. E. A. Tivey; *Honorary Secretary*, Dr. E. L. Newman. Membership, 66. Two meetings were held.

Western (affiliated 1908): *Chairman*, Dr. I. A. McLean; *Honorary Secretary*, Dr. S. R. Dawes. Membership, 80. Four meetings were held.

Western Suburbs (affiliated 1908): *Chairman*, Dr. W. H. Donald; *Honorary Secretary*, Dr. C. E. Vickery. Membership, 96. Eight meetings were held.

Annual Meetings of Delegates.

The twenty-first annual meeting of delegates of the affiliated Local Associations of Members with the Council was held on October 6, 1933. An account of the meeting appeared in The Medical Journal of Australia of December 2, 1933.

Sections for the Study of Special Branches of Medical Knowledge.

Genito-Urinary and Venereal Diseases (inaugurated 1928).

Hygiene and Preventive Medicine (inaugurated 1922): *Chairman*, Dr. Robert Dick; *Honorary Secretary*, Dr. A. H. Baldwin.

Medical Literature and History (inaugurated 1925): *Chairman*, Professor Harvey Sutton; *Honorary Secretaries*, Dr. H. M. Moran and Dr. L. Cowlishaw. Two meetings were held.

Medicine (inaugurated 1924): *Chairman*, Dr. S. A. Smith; *Vice-Chairmen*, Dr. H. J. Ritchie and Dr. O. A. Diethelm; *Honorary Secretary*, Dr. E. H. Stokes. Six meetings were held, including three in conjunction with meetings of the Branch.

Neurology and Psychiatry (inaugurated 1924): *Chairman*, Dr. Oliver Latham; *Vice-Chairman*, Dr. Chisholm Ross; *Honorary Secretary*, Dr. J. A. L. Wallace; *Honorary Medical Secretary*, Dr. D. W. H. Arnott. Four meetings were held, including one in conjunction with a meeting of the Branch.

Obstetrics and Gynæcology (inaugurated 1925): *Chairman*, Dr. H. Z. Throsby; *Vice-Chairman*, Dr. E. L. Newman; *Honorary Secretary*, Dr. H. A. Ridler. Five meetings were held, including one in conjunction with a meeting of the Branch.

Orthopædics (inaugurated 1923): *Chairman*, Dr. R. V. Graham; *Vice-Chairman*, Dr. S. H. Scougall; *Honorary Secretary*, Dr. F. H. McClements Callow. Four meetings were held.

Oto-Rhino-Laryngology (inaugurated 1924): *Chairman*, Dr. J. J. Woodburn; *Vice-Chairman*, Dr. H. S. Kirkland; *Honorary Secretary*, Dr. Ashleigh O. Davy. Four meetings were held, including one in conjunction with a meeting of the Branch.

Pædiatrics (inaugurated 1921): *Chairman*, Dr. Margaret Harper; *Vice-Chairmen*, Dr. C. L. S. Macintosh and Dr. W. C. Petherbridge; *Honorary Secretaries*, Dr. F. C. Rogers

Attendances at Council and Standing Committee Meetings.

	Council.	Committees.				
		Executive and Finance.	Organization and Science.	Medical Politics.	Hospitals.	Ethics.
Dr. J. E. V. Barling (Hon. Treasurer and Premises Attorney)	8	12	—	—	—	—
Dr. G. M. Barron	12	—	—	—	—	8
Dr. George Bell	10	10	—	—	10	—
Dr. C. B. Blackburn	5	—	—	—	—	9
Dr. A. J. Collins (President Elect)	9	10	5	10	7	8
Dr. A. M. Davidson	11	9	—	11	—	—
Dr. Lindsay Dey	11	—	—	9	—	—
Dr. J. A. Dick (Hon. Librarian)	10	7	—	11	—	—
Dr. B. T. Edye	10	—	—	—	—	7
Dr. A. J. Gibson (Past President)	9	9	—	—	—	—
Dr. R. V. Graham	10	—	—	6	10	—
Dr. A. W. Holmes à Court (President)	12	12	4	9	8	7
Dr. Hugh Hunter	11	—	—	10	—	—
Dr. W. K. Inglis	7	—	6	—	—	—
Dr. C. H. E. Lawes (Hon. Secretary)	11	9	—	5	1	—
Dr. A. A. Palmer	12	—	—	—	—	9
Dr. W. F. Simmons	11	—	—	12	11	—
Dr. Kenneth Smith	12	11	—	8	—	—
Dr. E. H. M. Stephen	8	—	6	—	—	10
Dr. W. Vickers	11	—	6	—	9	—
Meetings held	12	12	7	12	11	10

and Dr. L. H. Hughes. Five meetings were held, including three in conjunction with meetings of the Branch.

Pathology and Bacteriology (inaugurated 1924): *Chairman*, Dr. Oliver Latham; *Honorary Secretary*, Dr. Phyllis Anderson. Six meetings were held, including two in conjunction with meetings of the Branch.

Radiology (inaugurated 1926): *Chairman*, Dr. H. M. Cutler; *Honorary Secretary*, Dr. A. T. Nisbet. Four meetings were held, including one in conjunction with a meeting of the Branch.

Study of Cancer (inaugurated 1928).

Surgery (inaugurated 1925): *Chairman*, Dr. J. Colvin Storey; *Honorary Secretary*, Dr. C. E. Winston. Four meetings were held, including three in conjunction with meetings of the Branch.

British Medical Association Lectures.

Lectures were arranged as follows:

Central Southern Medical Association, Goulburn, April 21, 1933, Dr. A. R. Hamilton: "Fractures and Injuries About the Elbow Joint".

Northern District Medical Association, Tamworth, June 14, 1933, Dr. Grant Lindeman: "The Common or Usual Skin Diseases and Their Treatment".

North Eastern Medical Association, Lismore, March 25, 1933, Dr. H. M. Moran: "Treatment of Malignant Conditions by Radio-Therapeutics".

Western Medical Association, Dubbo, May 31, 1933, Dr. A. J. Gibson: "Common Complications in Obstetrics".

Post-Graduate Study.

The New South Wales Permanent Post-Graduate Committee organized the Annual General Revision Course, which was held from May 29 to June 10, 1933; 64 members attended.

In conjunction with the North Eastern Medical Association, the Committee held a Week-end Intensive Revision Course in Lismore on August 5 and 6, 1933; and, in conjunction with the Ophthalmological Society of New South Wales, the Committee arranged a Course in Practical Ophthalmology, November 6 to 17, 1933.

Federal Council.

The Federal Council of the British Medical Association in Australia was duly incorporated on May 15, 1933. The appointment of Dr. C. H. E. Lawes as General Secretary of the Council created a vacancy in the position of Representative of the New South Wales Branch, which was filled by the appointment of Dr. George Bell.

The first meeting of the Federal Council was held in Sydney on August 28, 1933, and the second meeting in Hobart on January 15, 1934. Dr. A. W. Holmes à Court attended the Hobart meeting as substitute for Dr. J. A. Dick. Reports of the proceedings of the meetings appeared in The Medical Journal of Australia of September 23, 1933, and February 10, 1934.

Australasian Medical Congress (British Medical Association).

The fourth session of the Australasian Medical Congress, British Medical Association, was held in Hobart at the University and the Phillip Smith Teaching College, January 15 to 20.

The great success which attended the organization and management of the session is a matter for hearty congratulations to the President, Dr. D. H. E. Lines, the Executive Committee and the Honorary General Secretaries, Dr. H. N. Butler and Dr. W. L. Crowther. The material presented at the sectional meetings was of high scientific value and the entertainment of visiting members was gracious and generous. Sixty-four members of the New South Wales Branch were members of the Congress.

Premises.

The revenue account of the British Medical Association House discloses a net surplus of income over expenditure for the year ended December 31, 1933, of £218 13s. 11d. A comparison of the annual percentages of expenditure to revenue from the opening of the building in 1930 to December 31, 1933, is as follows:

	% of Expenses to Revenue.	% of Result to Revenue.
½-year to 31/12/30	119·4%	Deficiency 19·4%
1 year to 31/12/31	114·8%	„ 14·8%
1 year to 31/12/32	109·8%	„ 9·8%
1 year to 31/12/33	97·9%	Surplus 2·1%

Expenses for the year 1933 (exclusive of interest) amounted to £4,265 4s. 7d., being £232 13s. 1d. more than for the year 1932, while the annual liability for interest decreased by £191 13s. 1d., thus showing a net increase in expenditure of £41.

Hospital Policy.

(*a*) Further consideration has been given to the hospital policy of the Association during the year. A draft policy was submitted to the Local Associations of members and to the visiting medical staffs of the Metropolitan Hospitals. A special general meeting of the Association was then convened to consider the matter, and the following resolutions were passed:

(1) That, as the system of payment in public hospitals for the treatment of the indigent sick by voluntary contributions has changed to that of payment by patients individually or by means of contributory funds, the Association insists on the right of medical practitioners to remuneration for services rendered in such hospitals.

(2) That the Association considers that the Visiting Medical Officers to a public hospital should have representation on the Board of the Hospital and that the representatives should be elected by the Visiting Medical Staff.

(3) That the Association considers that:

(*a*) Public Hospitals should be open to all classes of the community and that each person should pay according to his means.

(*b*) Public Hospitals should provide accommodation for all classes of patients according to their means—public bed, intermediate and private.

(*c*) Where in the opinion of the Board of Directors it is practicable, it is desirable that all reputable practitioners should be entitled to render services to intermediate or private patients in all hospitals.

(*d*) It is also desirable that in Metropolitan Hospitals all reputable practitioners should be entitled to render services to intermediate or private patients and that separate buildings or at least separate wards should be set aside for such intermediate or private patients.

(4) That the Association is of the opinion that the finance of hospitals would be best met by—

(*a*) Hospital Insurance Scheme—a compulsory insurance scheme to apply to all persons irrespective of income.

(*b*) Collection of fees from people not insured.

(*c*) Voluntary contributions—to continue to be sought and to be used—

(i) for capital expenditure — new buildings;

(ii) to finance research work;

(iii) to supply special appliances for investigation and treatment;

(iv) for the treatment of the indigent.

(*d*) Government subsidy.

(i) Special subsidy to those hospitals employing special methods of investigation and treatment.

(ii) Capital expenditure, and to supplement the cost of erection of new buildings.

(e) Payments on behalf of patients by the State or any other body, *e.g.*, State children, pensioners, public servants injured in the execution of their duties, etc.

(5) That the Association considers that all insurance and similar schemes should provide for inpatient treatment only.

(6) That the Association considers that—

(a) The primary consideration in the admission of a patient to hospital should be the suitability of the case on medical grounds.

(b) Every person admitted to a public bed must satisfy the hospital inquiring authority by statutory declaration that he or she is a fit and proper person to receive gratuitous medical treatment.

(c) Efficient means of investigation into the circumstances of the applicants for relief by means of an almoner or other agent should be employed in all hospitals.

(7) That the Association considers that all inpatients should be classified by the hospital executive according to their ability to pay for services rendered.

(8) That the Association considers that the outpatient department should be mainly for purposes of consultation but that the casualty department should be available in every emergency, and that application for such consultation should be made on a standard form which shall contain a statement of the patient's means.

(9) That the Association considers that—

(a) The system of Visiting Medical Officers to hospitals should be maintained.

(b) All vacant positions on the Visiting Medical Staff of public hospitals should be advertised both in the medical and lay press, and that such advertisement should conform to the standard of ethics laid down by the Association.

(10) That the Association considers that wherever possible special facilities should be provided at public hospitals for post-graduate study.

(11) That the Association, whilst asserting the right of medical practitioners to receive payment for their services in public hospitals, advises its members to continue the service of honorary attendance to public bed patients, provided that no patient shall be admitted to a public bed who shall be judged by the hospital executive as being able to pay in part or in whole for medical treatment.

(b) After careful consideration approval was given to the scheme of the Colonial Mutual Life Assurance Society, Limited, for hospital and medical services insurance providing that it was clearly set out that the benefits to the assured represented a contribution towards the total medical expenses and in no way represented the surgeon's or physician's charges. The request of the Society for an exclusive endorsement for four years was refused.

(c) A deputation of the Council interviewed the Minister for Health in regard to the insufficiency of accommodation for acute infectious diseases, and the classification of patients admitted to the Coast Hospital.

The Minister stated that the Coast Hospital was being reorganized and a modern infectious block to accommodate 250 patients would shortly be built, and that if sufficient funds were available he would make arrangements at Lidcombe Hospital to set aside 50 beds for infectious cases.

In regard to the classification of patients the Minister stated that the matter would receive his sympathetic consideration.

Friendly Society Lodge Practice.

(1) A round table conference between the Council and representatives of the Friendly Societies Association was held at Parliament House on September 4, 1933, the Honourable H. P. FitzSimons, M.L.A., Honorary Minister, presiding.

The object of the conference was to discuss the following proposals of the Friendly Societies Association relating to the Common Form of Agreement:

(1) The extension of the Metropolitan area.

(2) City rates for the City of Newcastle and suburbs and municipalities outside the districts of Sydney and suburbs of Newcastle and suburbs with a population of 7,500 and over.

(3) Reduction of rates by 22½% and reduction in mileage rates.

(4) Extension of services to include all minor operations and treatment where the doctor does not require the attendance of another medical officer such as for reducing dislocations, setting fractures, arresting hæmorrhage, suturing accidental wounds, opening superficial abscesses.

(5) Creation of machinery to deal with major disputes between Societies and medical officers.

(6) The word "Minimum" applying to rates to be eliminated.

(7) That a common form of medical examination of candidates be adopted, such form to be drawn on the experience of insurance companies.

(8) That the contract system be restricted to registered friendly societies.

No decisions were reached at the conference. Subsequent to the conference the Council referred the proposals to the Local Associations for discussion at the Annual (1933) Meeting of Delegates to Local Associations, following which the whole matter was again considered by the Council. The decisions of the Council, which were conveyed to the Honorary Minister, were as follows:

(a) That the metropolitan area be extended to include that part of the municipality of Holroyd lying between the Main Western Road and Main Western Line, that part of the Shire of Blacktown lying to the east of Seven Hills Road and that part of Baulkham Hills Shire lying to the south of Seven Hills Road.

(b) That proposals (2), (3) and (6) be not approved.

(c) That services under the Common Form of Agreement be extended to include minor surgical operations not requiring a local or general anæsthetic, *e.g.*, opening boils, suturing small wounds.

(d) That in view of the fact that complaints can always be referred to Council, the proposal to create machinery to deal with major disputes be not approved.

(e) That the proposal for a common form of examination be approved, and that the fee for the examination be seven shillings and sixpence, the Grand Lodge to be responsible for the fee.

(f) That the Association has not the power to restrict contract practice to registered friendly societies.

(2) Medical officers of lodges were requested to continue to accept on their quarterly lists of members, without remuneration, a number of unfinancial and unemployed members not exceeding 10% of the number of paying members on such quarterly lists.

Workers' Compensation Act, 1926-29.

As a result of the Council's refusal to agree to a 20% reduction in Schedule "D" rates the Fire and Accident Underwriters' Association, which comprises the greater majority of insurers licensed under the Workers' Compensation Act terminated as from December 1, 1933, the arrangement entered into between the members of that Association and the Council whereby, where the medical attendant chooses to look to the insurer for payment of his fees and charges, the insurer will pay him directly subject to his fees and charges being in accordance with

Schedule "D". The position now is that a medical practitioner must look to his injured worker patient for payment unless he is prepared to accept what the insurer offers.

The matter is receiving the careful consideration of the Council.

Medical Treatment of Unemployed.

The Council is still in communication with the Government in regard to the provision of medical attendance to the unemployed.

The Medical Journal of Australia.

The Medical Journal of Australia has maintained its reputation as a medical journal of the highest scientific interest.

The fine quality of work done at the Printing House has been much appreciated not only by members but also by various scientific bodies that have had their printing done there.

Congratulations.

Letters of congratulation were sent to Sir Thomas Dunhill and to Dr. F. A. Maguire on the honour of Knighthood and of Companion of the Order of St. Michael and St. George, respectively, being conferred upon them by His Majesty the King.

British Medical Association.
Annual Meeting, Melbourne, 1935.

A very important event in the history of the Association in Australia will be the holding of the Annual Meeting of the British Medical Association in Melbourne in September, 1935.

By-Laws—Advertisement (By-Law 18) Broadcasting.

At an extraordinary general meeting held on September 7, 1933, By-Law 18 was amended by the addition thereto of the following words:

> "Broadcasting by wireless shall be considered as a public address or lecture addressed to a lay audience and shall be governed by the conditions as laid down in this By-Law."

British Medical Agency of New South Wales, Limited.

The activities of the Agency are well known to many practitioners throughout the State, but there is still a number of members who have not availed themselves of the facilities presented by the Agency. Briefly these are as follows:

(1) Supplying of Locum Tenens and Assistants. The great increase in this department of the Agency's business during the past year is evidence of the satisfactory service rendered to members.

(2) Valuation and sale of medical practices. Transfers of practices and partnerships were necessarily restricted to a minimum during the worst years of the economic depression, but during the past year many transfers were effected.

(3) Advice on Life and Endowment Assurance, the major contingencies for which all medical practitioners should provide are: (*a*) Death—provision for dependents. (*b*) Disablement—provision for sickness and accident. (*c*) Independence on retirement. These are all covered by membership of the Superannuation Fund.

Members of the fund have so far received compensation for disability amounting to £1,200.

The Agency is also empowered by the Australian Mutual Provident Society to collect premiums on existing policies

BRITISH MEDICAL ASSOCIATION—NEW SOUTH WALES BRANCH.

Balance Sheet as at December 31, 1933.

Liabilities.	£ s. d.	£ s. d.
Debentures		27,422 0 0
Interest Accrued on Debentures		5,466 12 5
Australian Mutual Provident Society		96,077 2 4
Sundry Deposits at Call		950 0 0
Sundry Creditors		710 2 6
Commercial Banking Co. of Sydney Ltd.—		
Overdraft—Premises A/c	4,131 10 4	
Less Credit Balance, Branch A/c	436 1 8	
		3,695 8 8
Accumulated Funds Account—		
Balance at 31st December, 1932	55,132 1 0	
Add Face Value of Debentures in the Australasian Medical Publishing Co., Ltd., not previously shown on Balance Sheet	100 0 0	
	55,232 1 0	
Less Net Deficiency in Revenue A/c for year ended 31st December, 1933—		
Branch A/c— Deficiency £342 9 9		
Less Premises A/c— Surplus £218 13 11		
	123 15 10	
		55,108 5 2
		£189,429 11 1

Assets.	£ s. d.	£ s. d.
Land and Building		185,547 7 4
Library—		
Balance at 31st December, 1932	1,074 13 9	
Add Additions (1933)	64 18 4	
	1,139 12 1	
Less Depreciation	107 9 4	
		1,032 2 9
Office Furniture and Equipment—		
Balance at 31st December, 1932	220 4 7	
Less Depreciation	22 0 5	
		198 4 2
Debentures in other Companies		100 0 0
Sundry Debtors		1,927 3 4
Cash on Hand		1 13 1
Prepaid Expenses		623 0 5
		£189,429 11 1

Branch Account.

Income and Expenditure Account for the Year ended December 31, 1933.

	£ s. d.	£ s. d.		£ s. d.	£ s. d.
To Salaries *et cetera*—			By Subscriptions—		
Medical Secretariat and Staff (5)	1,625 10 4		1933	7,243 9 3	
Financial Secretariat (1)	90 0 0		1932	921 1 6	
Librarian (1)	166 19 0		Previous years	93 17 9	
		1,882 9 4			8,258 8 6
„ Rent—Offices *et cetera*	1,885 0 0		*Less* Proportion due to British Medical Association	2,112 0 8	
„ Printing and Stationery	158 7 2		The Medical Journal of Australia	2,056 18 9	
„ Stamps and Telegrams	153 14 2				4,168 19 5
„ Telephones	60 13 2				4,089 9 1
„ Family Endowment Tax	34 16 3		„ Interest—		
„ Interest — Medical Journal No. 2 Account	51 13 1		Debentures, The Medical Journal of Australia	4 0 0	
„ Legal Expenses	53 12 5		Premises Account	50 6 0	
„ Travelling Expenses	29 9 0		Post-Graduate Fund	1 0 0	
„ Insurance	5 17 8		„ Rent, Assembly Hall	80 8 6	
„ Exchange and Bank Charges	6 1 7		„ Sales, C.F.A. *et cetera*	7 11 2	
„ Refreshments—Meetings	16 10 0				143 5 8
„ Newspapers	3 15 3		„ Balance—Deficiency for the year ended 31st December, 1933, transferred to Accumulated Funds Account		342 9 9
„ Sundry Petty Expenses	6 10 5				
„ Federal Committee	79 18 0				
„ Tea Money	8 15 0				
„ Hire of Projector and Attendant	3 9 0				
„ University Club Luncheon	5 3 3				
		2,563 5 5			
„ Depreciation—					
Library	107 9 4				
Office Furniture and Equipment	22 0 5				
		129 9 9			
		£4,575 4 6			£4,575 4 6

We have examined the books and vouchers of the N.S.W. Branch of the British Medical Association for the twelve months ended 31st December, 1933, and we certify that, in our opinion, the above Balance Sheet and accompanying Income and Expenditure Account represent the true financial position of the Association at 31st December, 1933, and the transactions for the year ended that date respectively, as shown by the books of the Association and information supplied us.

(Sgd.) COATES, CUNNINGHAM & CO.,
Chartered Accountants (Aust.).

with that Society. The very large measure of support given to this department of the Agency's business has been much appreciated.

(4) Advice on Fire and Accident Insurance. All classes of Fire and Accident Insurance are catered for. Claims are promptly settled.

(5) Book-keeping and account service. This service includes the preparation of all books, statements of accounts to patients, income tax returns, and periodical financial statements.

Members are urged to consult the Agency for all matters connected with the business side of their practices.

A. W. Holmes à Court,
President.

Financial Statements.

Dr. J. E. V. Barling moved that the statement of receipts and expenditure be received. The motion was seconded by Dr. A. M. Davidson and carried. The statements are published herewith. Dr. Barling also dealt with the balance sheet and financial statement of the premises account. Dr. Davidson seconded Dr. Barling's motion that the statements be received, and the motion was carried.

Election of Office-Bearers.

Dr. A. W. Holmes à Court announced that Dr. Kenneth Smith had been elected as President-Elect for the ensuing year. He also announced that the following had been elected members of Council: Dr. G. M. Barron, Dr. George Bell, Dr. C. B. Blackburn, Dr. A. M. Davidson, Dr. Lindsay Dey, Dr. J. Adam Dick, Dr. B. T. Edye, Dr. A. J. Gibson, Dr. R. V. Graham, Dr. Hugh Hunter, Dr. W. Keith Inglis, Dr. C. H. E. Lawes, Dr. R. J. Millard, Dr. A. A. Palmer, Dr. W. F. Simmons, Dr. E. H. M. Stephen, Dr. W. Vickers.

Messrs. Coates, Cunningham and Company, Chartered Accountants, were appointed auditors for the ensuing year.

On the motion of Dr. A. J. Gibson, seconded by Dr. B. T. Edye, Dr. F. P. Sandes was appointed representative and Dr. H. R. G. Poate deputy-representative of the Branch in the Representative Body, 1934-1935.

On the motion of Dr. W. Vickers, seconded by Dr. H. Hunter, Dr. Garnet Halloran and Dr. F. W. D. Collier were appointed delegates of the Branch to attend the annual meeting (1934) of the British Medical Association in Bournemouth.

Incoming President's Address.

Dr. A. J. Collins delivered his President's address (see page 515). A vote of thanks was passed to Dr. Collins, on the motion of Dr. A. A. Palmer, seconded by Dr. E. H. M. Stephen.

Induction of President.

Dr. A. W. Holmes à Court inducted the President for the year 1934-1935, Dr. A. J. Collins. Dr. Collins thanked the members for his election, and the meeting closed with a vote of thanks to the retiring President, Dr. A. W. Holmes à Court, moved by Dr. A. J. Collins.

NOMINATIONS AND ELECTIONS.

The undermentioned have been elected members of the New South Wales Branch of the British Medical Association:

Armstrong, Keith Boyce, M.B., 1930 (Univ. Sydney), Royal Hospital for Women, Paddington.
Brown, David Richmond, M.B., 1928, B.S., 1930 (Univ. Sydney), Dora Creek.
Clouston, Thomas Moore, M.B., B.S., 1930 (Univ. Sydney), Portland.
Cunningham, William Davies, M.B., B.S., 1933 (Univ. Sydney), Newcastle Hospital, Newcastle.
Hudson, Carlyle Penrose, M.B., B.S., 1933 (Univ. Sydney), Newcastle Hospital, Newcastle.
Shaw, Francis William Rutherford Seymour, M.B., 1932 (Univ. Sydney), Tibooburra.
McQueen, George Hugh, M.B., B.S., 1928 (Univ. Melbourne), Strontian, Bancroft Avenue, Roseville.
Morton, Charles Robert, M.B., B.S., 1933 (Univ. Sydney), Newcastle Hospital, Newcastle.
Lovell, Stanley Hains, M.B., B.S., 1929 (Univ. Sydney), 185, Macquarie Street, Sydney.
Palmer, Edward Charles, M.B., B.S., 1932 (Univ. Sydney), Royal Hospital for Women, Paddington.
Quilter, John William, M.B., B.S., 1930 (Univ. Sydney), Grenfell.
Ritchie, Thomas John, M.B., B.S., 1933 (Univ. Sydney), Coonamble.

Correspondence.

SURGEONS AND SURGERY.

Sir: The College of Surgeons has again found the limelight of the public Press with its educational propaganda for brighter and better surgery. The ethics of the matter have been discussed before. But may I put another aspect of the question?

If the College is really sincere in its statements as to its desire to render to the community the highest possible standard of surgical service, then what concessions are its members willing to make to rural patients? The same surgical emergencies arise in the outback areas as in the cities, and the victims have to suffer under the hands of we poor ignoramuses, the country practitioners. Usually the patients are satisfied, though we may not be.

There are three possible solutions to the problem:

1. The Fellows of the College should be prepared to be scattered at strategic points throughout the countryside at distances not more than fifty miles apart, and to suffer the same conditions of personal and professional exile as are the lot of the rural practitioner.

2. They should be prepared to travel to the country patient at a mileage fee of sixpence a mile—the actual cost of travelling—and perform the operation for the same fee which the practitioner has to accept, not because he does not ask for full fees, but because it is all the patient can pay. In this connexion it must be remembered that the fee is often nothing at all. He must also be prepared to wait for his fee for the same time as we have to, and to collect from the patient, not the calling practitioner.

In the event of either of these cases we must be prepared to see a certain number of country practices vacated and the people left without a doctor at all; for if the fees from surgery were taken from the practice there would not be a living in it.

3. The obvious solution is that the general practitioner should receive in his training days sufficient practice in the manipulations of surgery to set him on the way to being a "surgeon, not an operator". Which is perfectly easy. It only requires that the Fellows of the College, the senior surgeons of the public hospitals, shall allow their house surgeons to do all the smaller operations which come into their wards, under the senior's supervision. If they would do this instead of the one appendix, one hernia, one Gilliam, which was the custom in my day, then they would be fulfilling their protestations. Here is a way for them to prove their sincerity.

A last word concerning the most recent appendicectomy I have done. The child was seen in consultation nine months ago by a fellow of a college of surgeons. The practitioner in charge had diagnosed appendicitis, but the fellow poo-poohed the idea. The child was seen in consultation by me in a second, exactly similar, attack on March 1. The picture was atypical, as it often is in a child of three, but next morning we removed a severely inflamed appendix and let out a lot of serous fluid from the abdominal cavity. Fortunately for the child, Nature has proved superior to the efforts of our clumsy masculine hands and unleonine hearts, and he is making an excellent recovery.

Yours, etc.,
Cyril T. Piper.

Bute,
South Australia,
March 5, 1934.

OCULISTS AND OPTOMETRISTS.

Sir: I am directed by the Board to intimate that the paragraph on page 278 of the issue of your journal dated February 24, 1934, in which the following occurs, has been brought to the notice of the Board:

> There were two factions on the Board, one concerned with prices, and one working for the higher degree. Advantage had been taken of these factions.

The Board desire me to point out that these statements are not in accordance with fact and are an unfair reflection on the Board and its administration of the *Opticians Act*. In the circumstances the members would be glad if arrangements could be made to correct the erroneous impression which has been conveyed by the publication of the paragraph mentioned.

Yours, etc.,
F. R. Lake,
Registrar.

Board of Optometrical Registration,
Chief Secretary's Building,
Sydney,
April 6, 1934.

Obituary.

JOHN BOX.

Dr. John Box, who died on February 3, 1934, at Melbourne after a short illness, was the second son of the late Edward Box. He was born at Fitzroy, Victoria, on May 24, 1863. He went to Templeton's Common School, Fitzroy, and later to Carlton College, from which he matriculated. He then entered the Education Department and was a pupil teacher at the Gold Street State School. He completed the course at the Teachers' Training College and then took charge of schools in the Wimmera district and at Cardinia Creek, near Beaconsfield.

He left the Education Department, passed his first year's examination in the Faculty of Arts at the University of Melbourne, and in 1888 began the study of medicine. He graduated as Bachelor of Medicine and Bachelor of Surgery in 1892. After graduation he acted as *locum tenens* for a lengthy period in Tasmania, and then was appointed house surgeon to the Victorian Eye and Ear Hospital in 1893. He was subsequently appointed to the honorary staff and remained a member until his retirement in 1926. He started practice in 1894 at Footscray. He remained in general practice until 1910, when he devoted himself entirely to diseases of the eye, ear, nose and throat. He was honorary oculist and aurist to the Williamstown Hospital for thirty-seven years.

John Box was a justice of the peace and was the first Chairman of the Bench of the Children's Court at Footscray. His chief hobbies were his garden and Jersey cattle. He was a keen judge of Jersey cattle, and had a herd on his property at Noo Jee. He was twice married and is survived by four sons, one of whom is in medical practice in Melbourne.

Dr. James F. Ruddall writes:

For more than twenty-five years I have seen much of the late Dr. John Box in private practice and at the Victorian Eye and Ear Hospital, where for several years he was honorary assistant surgeon to my clinic. My association with him was a very happy one, due largely to his genial and kindly disposition. He was a man of high principles and sound judgement. In his profession he was a careful, thorough and unostentatious worker, ever ready to do his utmost for the welfare of his patients, regardless of the probability or improbability of pecuniary reward. In his relations with his professional *confrères* he was an example of integrity, conscientiousness and kindness. Those of us who were privileged to have known him and to have worked with him have lost a sincere friend and a valued colleague.

CECIL UREN.

We regret to announce the death of Dr. Cecil Uren, which occurred on April 11 at Orange, New South Wales.

Proceedings of the Australian Medical Boards.

NEW SOUTH WALES.

The undermentioned have been registered, pursuant to the provisions of the *Medical Act*, 1912 *and* 1915, of New South Wales, as duly qualified medical practitioners:

Hughes, Geoffrey Charles, M.B., B.S., 1933 (Univ. Sydney), Sydney Hospital.

Johnson, David William, M.B., B.S., 1933 (Univ. Sydney), Sydney Hospital.

Sharland, Andrew Alexander, M.B., B.S., 1933 (Univ. Sydney), Royal Prince Alfred Hospital.

Additional diplomas registered:

Cottrell, Jack Dinham, M.R.C.P., 1932 (London), Wentworth Falls.

Change of name on Register:

Willa Rowohl to Wilhelmina Francis Loveday Nelson.

VICTORIA.

The undermentioned have been registered, pursuant to the provisions of the *Medical Act*, 1928, of Victoria, as duly qualified medical practitioners:

Abey, Arthur Montague, M.B., B.S., 1932 (Univ. Melbourne), Mental Hospital, Mont Park.

Braithwaite, Stella Genevieve, M.B., B.S., 1933 (Univ. Melbourne), c.o. Braithwaite Pty., Ltd., High Street, Preston, N.18.

Buntine, Robert Douglas, M.B., B.S., 1933 (Univ. Melbourne), 31A, Toorak Road, Malvern, S.E.2.

Donald, Charles Douglas, M.B., B.S., 1933 (Univ. Melbourne), 448, Glen Eira Road, Caulfield, S.E.8.

Frater, Alexander Smaill, M.B., B.S., 1933 (Univ. Melbourne), Base Hospital, Warrnambool.

King, John Leo, M.B., B.S., 1933 (Univ. Melbourne), "Rosemont", Balaclava Road, Caulfield, S.E.7.

Millikan, Alan Hamilton, M.B., B.S., 1933 (Univ. Melbourne), District Hospital, Wagga Wagga, New South Wales.

McGregor, Alexander Hugh, M.B., B.S., 1933 (Univ. Melbourne), Geelong Hospital, Geelong.

McLean, Allan Bell, M.B., B.S., 1933 (Univ. Melbourne), 17, Iona Street, Black Rock, S.9.

Oliphant, Francis Harold, M.B., B.S., 1933 (Univ. Melbourne), 158, Alma Road, East St. Kilda, S.2.

Penington, Alan Harry, M.B., B.S., 1933 (Univ. Melbourne), Melbourne Hospital, Melbourne, C.1.

Pern, Geoffrey, M.B., B.S., 1933 (Univ. Melbourne), 20, Springfield Avenue, Toorak, S.E.2.

Richmond, James Jackson, M.B., B.S., 1933 (Univ. Melbourne), 3, Austin Avenue, Elwood, S.3.

Shaw, Helen, M.B., B.S., 1901 (Univ. Melbourne), 4, Neave Street, Hawthorn, E.3.

Shiels, Douglas Oswald, M.B., B.S., 1933 (Univ. Melbourne), 178, George Street, East Melbourne, C.2.

Stewart, Randal Alexander, M.B., B.S., 1933 (Univ. Melbourne), District Hospital, Wangaratta.

Stiles, Bernard Tarlton, M.B. *et* Ch.M., 1906 (Univ. Sydney), Gisborne.

Turnbull, Reginald John David, M.B., B.S., 1933 (Univ. Melbourne), c.o. Union Bank of Australasia, Collins Street, Melbourne, C.1.

Van Pelt, Sydney James, M.B., B.S., 1933 (Univ. Melbourne), Alfred Hospital, Prahran, S.1.

Whitehead, James Cockburn, M.B., B.S., 1933 (Univ. Melbourne), Saint Vincent's Hospital, Melbourne, N.6.

Wilson, Thomas Keith, M.B., B.S., 1933 (Univ. Melbourne), 8, Victoria Street, Elsternwick, S.4.

TASMANIA.

The undermentioned have been registered, pursuant to the provisions of the *Medical Act*, 1918, of Tasmania, as duly qualified medical practitioners:

Watson, Gerald Darnton Talbot, M.B., B.S., 1931 (Univ. Melbourne), Public Hospital, Launceston.

Goodman, Philip, M.B., B.S., 1925 (Univ. Melbourne), Campbell Town, Tasmania.

Maclean, Leonard Allan, M.B., B.S., 1932 (Univ. Adelaide), General Hospital, Hobart.

Paull, Ivor John, M.B., B.S., 1932 (Univ. Melbourne), M.Sc., 1927 (Univ. Queensland), General Hospital, Hobart.

Galbraith, Thomas, M.B., Ch.M., 1924 (Univ. Sydney), King Island.

Books Received.

THE SURGERY OF THE SYMPATHETIC NERVOUS SYSTEM, by G. E. Gask, F.R.C.S., and J. P. Ross, M.S., F.R.C.S.; 1934. London: Baillière, Tindall and Cox. Crown 4to., pp. 175, with illustrations. Price: 16s. net.

SOUVENIR OF THE INCORPORATION OF DARTFORD AS A MUNICIPAL BOROUGH, September 13, 1933; 1934. Dartford: H. G. Ellis and Son. Demy 4to., pp. 35, with illustrations.

THE 1933 YEAR BOOK OF OBSTETRICS AND GYNECOLOGY; 1934. Chicago: The Year Book Publishers. Crown 8vo., pp. 630.

A DIABETIC MANUAL FOR THE MUTUAL USE OF DOCTOR AND PATIENT, by E. P. Joslin, M.D.; Fifth Edition; 1934. Philadelphia: Lea and Febiger. Demy 8vo., pp. 224, with illustrations.

MODERN ASPECTS OF GASTRO-ENTEROLOGY, by M. A. Arafa, M.R.C.P., with foreword by A. F. Hurst, M.D., F.R.C.P.; 1933. London: Baillière, Tindall and Cox; Australia: Angus and Robertson. Royal 8vo., pp. 391, with illustrations. Price: 42s. net.

THE SCIENCE OF RADIOLOGY, edited by O. Glasser; 1934. London: Baillière, Tindall and Cox. Royal 8vo., pp. 464, with illustrations. Price: 25s. net.

MANUAL OF UROLOGY, by R. M. Le Comte, M.D., F.A.C.S.; 1933. London: Baillière, Tindall and Cox. Demy 8vo., pp. 323, with illustrations. Price: 18s. net.

RECENT ADVANCES IN VACCINE AND SERUM THERAPY, by A. Fleming, F.R.C.S., and G. F. Petrie, M.D.; 1934. London: J. and A. Churchill. Demy 8vo., pp. 473, with illustrations. Price: 15s. net.

CLINICAL TOXICOLOGY: MODERN METHODS IN THE DIAGNOSIS AND TREATMENT OF POISONING, by E. Leschke, translated by C. P. Stewart, M.Sc., Ph.D., and O. Dorrer, Ph.D.; 1934. London: J. and A. Churchill. Demy 8vo., pp. 354, with illustrations. Price: 15s. net.

Diary for the Month.

APRIL 24.—New South Wales Branch, B.M.A.: Medical Politics Committee.
APRIL 25.—Victorian Branch, B.M.A.: Council.
APRIL 26.—South Australian Branch, B.M.A.: Branch.
APRIL 26.—New South Wales Branch, B.M.A.: Branch.
APRIL 27.—Queensland Branch, B.M.A.: Council.
MAY 1.—Tasmanian Branch, B.M.A.: Council.
MAY 2.—Western Australian Branch, B.M.A.: Council.
MAY 2.—Victorian Branch, B.M.A.: Branch.
MAY 3.—South Australian Branch, B.M.A.: Council.
MAY 4.—Queensland Branch, B.M.A.: Branch.
MAY 7.—New South Wales Branch, B.M.A.: Organization and Science Committee.
MAY 8.—Tasmanian Branch, B.M.A.: Branch.
MAY 8.—New South Wales Branch, B.M.A.: Executive and Finance Committee.
MAY 11.—Queensland Branch, B.M.A.: Council.
MAY 15.—New South Wales Branch, B.M.A.: Ethics Committee.
MAY 15.—Tasmanian Branch, B.M.A.: Council.
MAY 16.—Western Australian Branch, B.M.A.: Branch.

Medical Appointments.

The undermentioned have been appointed as Members of the Medical Board of Queensland, in pursuance of the provisions of *The Medical and Other Acts Amendment Act of* 1933: Dr. F. G. Connolly, Dr. L. M. McKillop (B.M.A.), Dr. H. J. Windsor (B.M.A.), Dr. T. E. Maloney, Dr. Alexander Murphy (B.M.A.), Dr. M. S. Patterson (B.M.A.), Dr. K. J. G. Wilson (B.M.A.).

* * *

Dr. Constance Alice Finlayson has been appointed Temporary Honorary Relieving Medical Officer to the "Mareeba" Babies' Hospital, South Australia.

* * *

The undermentioned appointments have been made to the positions on the Honorary Medical Staff of the Adelaide Hospital, Adelaide: Honorary Assistant Ophthalmologist, Dr. F. J. B. Miller; Temporary Honorary Surgeon, Dr. A. T. Britten Jones (B.M.A.); Temporary Honorary Assistant Surgeon, Dr. W. J. W. Close (B.M.A.); Temporary Honorary Radiologist, Dr. H. A. McCoy (B.M.A.); Temporary Honorary Clinical Assistant to the X-Ray Department, Dr. E. R. Crisp.

* * *

Dr. L. H. Tassie (B.M.A.) has been appointed a Member of the Medical Board of Port Pirie, under the provisions of the *Workmen's Compensation Act*, 1932.

* * *

Dr. V. C. Podger has been appointed Certifying Medical Practitioner at Moonee Ponds, Victoria, pursuant to the provisions of the *Workers' Compensation Act*, 1928.

* * *

Dr. W. A. Brady has been appointed Acting Medical Superintendent of the Hospital for the Insane, Ballarat, Victoria, pursuant to the provisions of the *Lunacy Act*, 1928.

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, *locum tenentes* sought, etc., see "Advertiser," pages xvi, xvii

RENWICK HOSPITAL FOR INFANTS, SUMMER HILL, NEW SOUTH WALES: Honorary Physicians.
ROYAL NORTH SHORE HOSPITAL OF SYDNEY, NEW SOUTH WALES: Medical Superintendent.

Medical Appointments: Important Notice.

MEDICAL practitioners are requested not to apply for any appointment referred to in the following table without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

BRANCH.	APPOINTMENTS.
NEW SOUTH WALES: Honorary Secretary, 135, Macquarie Street, Sydney.	Australian Natives' Association. Ashfield and District United Friendly Societies' Dispensary. Balmain United Friendly Societies' Dispensary. Friendly Society Lodges at Casino. Leichhardt and Petersham United Friendly Societies' Dispensary. Manchester Unity Medical and Dispensing Institute, Oxford Street, Sydney. North Sydney Friendly Societies' Dispensary Limited. People's Prudential Assurance Company Limited. Phœnix Mutual Provident Society.
VICTORIAN: Honorary Secretary, Medical Society Hall, East Melbourne.	All Institutes or Medical Dispensaries. Australian Prudential Association, Proprietary, Limited. Mutual National Provident Club. National Provident Association. Hospital or other appointments outside Victoria.
QUEENSLAND: Honorary Secretary, B.M.A. Building, Adelaide Street, Brisbane.	Brisbane Associated Friendly Societies' Medical Institute. Chillagoe Hospital. Members accepting LODGE appointments and those desiring to accept appointments to any COUNTRY HOSPITAL are advised, in their own interests, to submit a copy of their agreement to the Council before signing. Lower Burdekin District Hospital, Ayr.
SOUTH AUSTRALIAN: Secretary, 207, North Terrace, Adelaide.	Combined Friendly Societies, Clarendon and Kangarilla districts. Officer of Health, District Council of Elliston. All Lodge Appointments in South Australia. All Contract Practice Appointments in South Australia.
WESTERN AUSTRALIAN: Honorary Secretary, 205, Saint George's Terrace, Perth.	All Contract Practice Appointments in Western Australia.
NEW ZEALAND (Wellington Division): Honorary Secretary, Wellington.	Friendly Society Lodges, Wellington, New Zealand.

Editorial Notices.

MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

All communications should be addressed to "The Editor", THE MEDICAL JOURNAL OF AUSTRALIA, The Printing House, Seamer Street, Glebe, New South Wales. (Telephones: MW 2651-2.)

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